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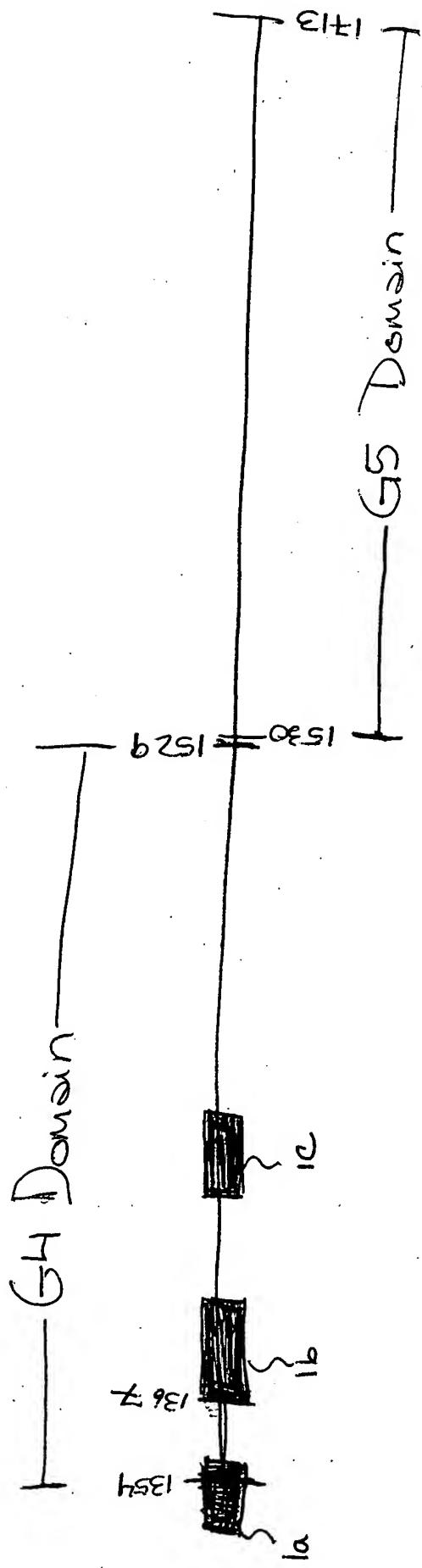


FIG. 1A

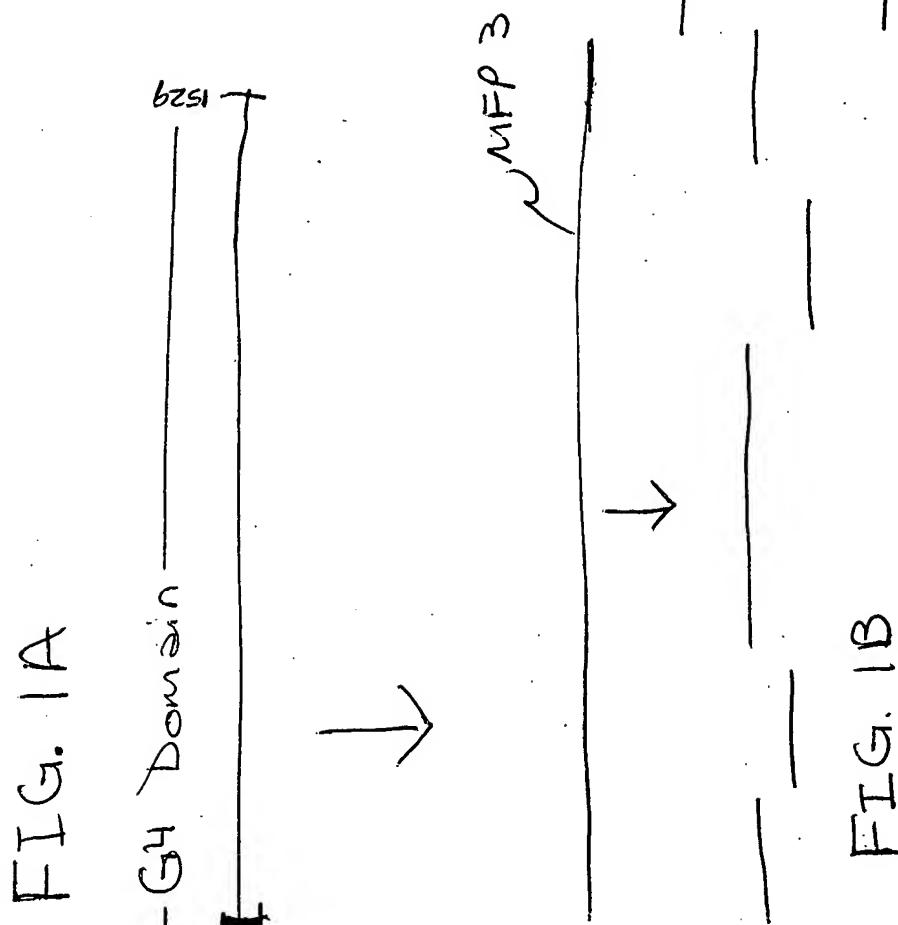


FIG. 1B

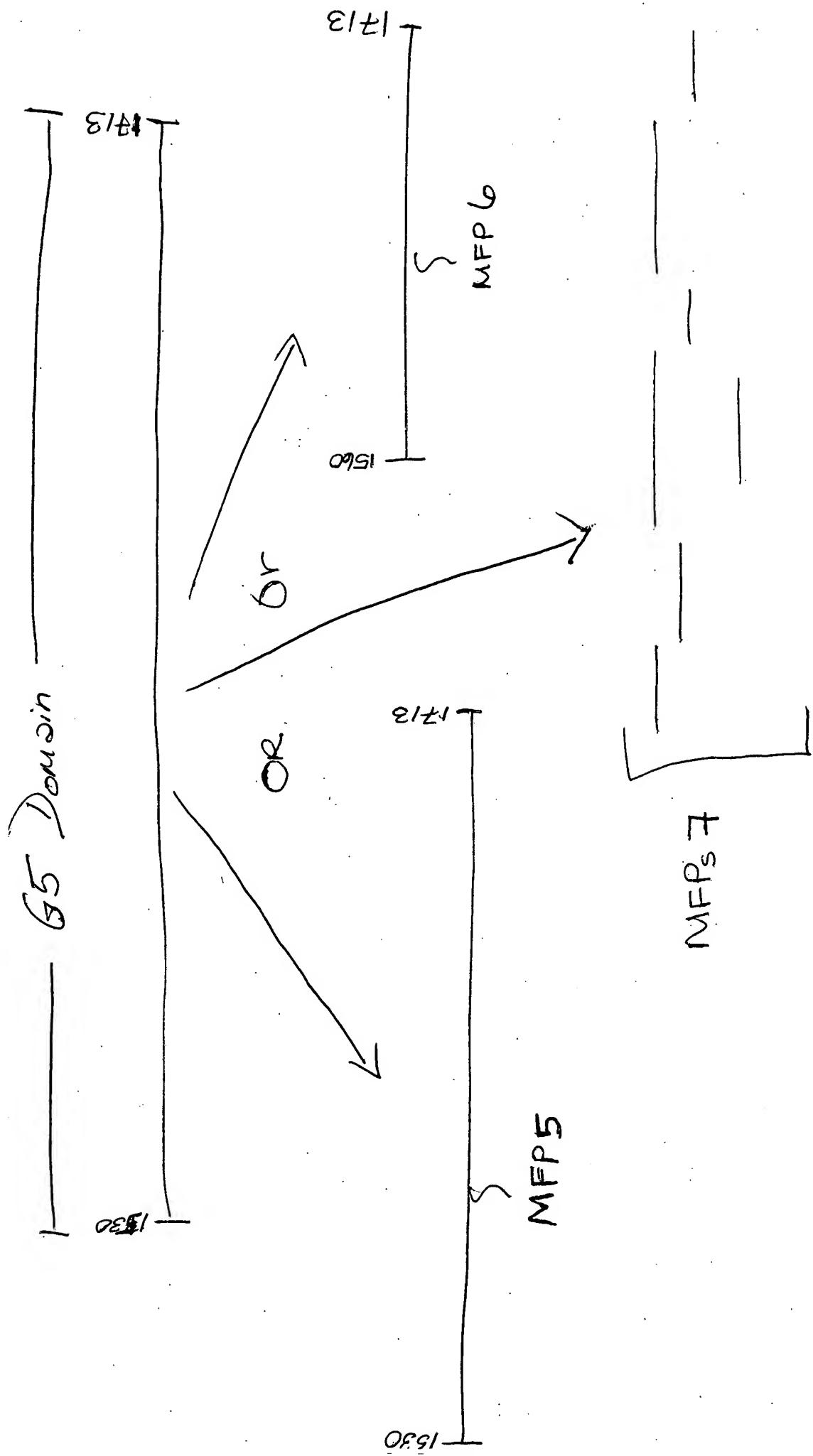


FIG. 1C

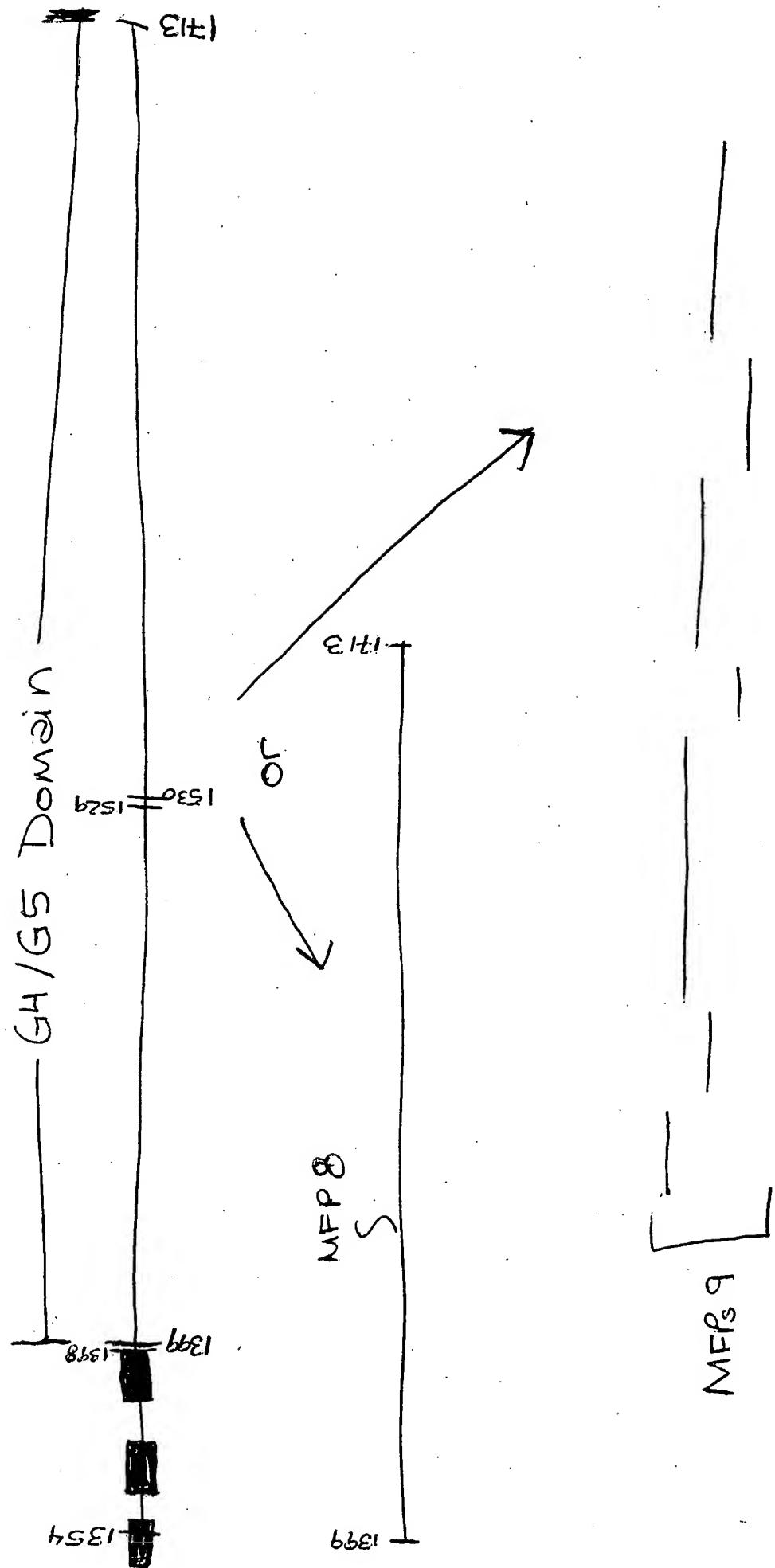


FIG 1D

FIG. 2A

1 atggatggc tgtggatctt tggggcagcc ctggggcagt gtctggcta  
cagttcacag  
61 cagcaaaggg tgccatttct tcagcctccc ggtcaaagtc aactgcaagc  
gagttatgtg  
121 gagtttagac ccagccaggg ttgttagccct ggatactatc gggatcataa  
aggcttgtat  
181 accggacggt gtgtccctg caattgcaac ggacattcaa atcaatgcca  
ggatggctca  
241 ggcataatgtg ttaactgtca gcacaacacc gcgggagagc actgtgaacg  
ctgccaggag  
301 ggctactatg gcaacgcccgt ccacggatcc tgcagggcct gccccatgtcc  
tcacactaac  
361 agcttgcca ctggctgtgt ggtgaatggg ggagacgtgc ggtgctcctg  
caaagctggg  
421 tacacaggaa cacagtgtga aagggtgtca ccgggatatt tcgggaatcc  
ccagaaattc  
481 ggaggttagct gccaaccatg cagttgtaac agcaatggcc agctggcag  
ctgtcatccc  
541 ctgactggag actgcataaa ccaagaaccc aaagatagca gccctgcaga  
agaatgtgat  
601 gattgcgaca gctgtgtat gaccctcctg aacgacctgg ccaccatggg  
cgagcagctc  
661 cgcctggta agtctcagct gcagggcctg agtgcacgcg cagggcttct  
ggagcagatg  
721 aggcacatgg agacccaggc caaggacctg aggaatcagt tgctcaacta  
ccgttctgcc  
781 atttcaaatc atggatcaaa aatagaaggc ctggaaagag aactgactga  
tttgaatcaa  
841 gaatttgaga ctttgcaga aaaggctaa gtaaattcca gaaaagcaca  
aacattaaac  
901 aacaatgtta atcgggcaac acaaagcgca aaagaactgg atgtgaagat  
taaaaatgtc  
961 atccggaatg tgcacattct tttaaagcag atctctggga cagatggaga  
gggaaacaac  
1021 gtgccttcag gtgactttc cagagagtgg gctgaagccc agcgcatgat  
gagggactg  
1081 cggAACAGGA ACTTGGAAA GCACCTCAGA GAAGCAGAAAG CTGATAAAAG  
GGAGTCGCGAG  
1141 CTCTTGCTGA ACCGGATAAG GACCTGGCAG AAAACCCACC AGGGGGAGAA  
CAATGGGCTT  
1201 GCTAACAGTA TCCGGGATTG TTAAATGAA TACGAAGCCA AACTCAGTGA  
CCTTCGTGCT  
1261 CGGCTGCAGG AGGCAGCTGC CCAAGCCAAG CAGGCAAATG GCTTGAACCA  
AGAAAACGAG

FIG. 2A (CONT)

1321 agagcttgg gagccattca gagacaagtg aaagaaaataa attccctgca  
gagtgattc  
1381 accaagtatc taaccactgc agactcatct ttgttgcaaa ccaacattgc  
gctgcagctg  
1441 atggagaaaa gccagaagga atatgaaaaa ttagctgcca gtttaatga  
agcaagacaa  
1501 gaactaagtg acaaagtaag agaactttcc agatctgctg gcaaaacatc  
ccttgtggag  
1561 gaggcagaaa agcacgcgc gtccttacaa gagctggcaa agcagctgga  
agagatcaag  
1621 agaaacgcca gcggggatga gctggcgc tgcgtgtgg atgccgccac  
cgccctacgag  
1681 aacatcctca atgccatcaa agcggccgag gacgcagcca acagggctgc  
cagtgcatct  
1741 gaatctgccc tccagacagt gataaaggaa gatctgcca gaaaagctaa  
aaccctgagt  
1801 tccaacagtg ataaactgtt aaatgaagcc aagatgacac aaaagaagct  
aaagcaagaa  
1861 gtcagtccag ctctcaacaa cctacagcaa accctgaata ttgtgacagt  
tcagaaagaa  
1921 gtgatagaca ccaatctcac aactctccga gatggcttc atggataca  
gagaggtgat  
1981 attgatgcta tgatcagtag tgcaaagagc atggtcagaa aggccaacga  
catcacagat  
2041 gaggttctgg atgggctcaa ccccatccag acagatgtgg aaagaattaa  
ggacacctat  
2101 gggaggacac agaacgaaga cttcaaaaag gctctgactg atgcagataa  
ctcggtaat  
2161 aagttaacca acaaactacc tgatcttgg cgcaagattt aagttatcaa  
ccaaacagctg  
2221 ttgcccttgg gaaacatctc tgacaacatg gacagaatac gagaactaat  
tcagcaggcc  
2281 agagatgctg ccagtaaggt tgctgtcccc atgaggattca atggtaaatc  
tggagtctgaa  
2341 gtccgactgc caaatgaccc ggaagattt aaaggatata catctctgtc  
cttggggatc  
2401 caaaggccca actcaagaga aaatgggggt actgagaata tgtttgtat  
gtaccttggaa  
2461 aataaagatg cttccggga ctacatggc atggcagttg tggatggcca  
gtcacctgt  
2521 gtctacaacc tgggggaccg tgaggctgaa ctccaagtgg accagatctt  
gaccaagatg  
2581 gagactaagg aggtagttt ggtatgggtg aaatttcaga gaatttatca  
gtttgcaagg

FIG. 2A (CONT)

2641 cttaattaca ccaaaggagc cacatccagt aaaccagaaa caccggagt  
ctatgacatg  
2701 gatggtagaa atagcaatac actccttaat ttggatcctg aaaatgttgt  
attttatgtt  
2761 ggagggttacc cacctgattt taaacttccc agtcgactaa gttccctcc  
atacaaaggat  
2821 tgtattgaat tagatgacct caatgaaaat gttctgagct tgtacaactt  
caaaaaaaaaaca  
2881 ttcaatctca acacaactga agtggagcct tgtagaagga ggaaggaaga  
gtcagacaaa  
2941 aattatttt aaggtacggg ctatgctga gttccaactc aaccacatgc  
tcccatccca  
3001 acctttggac agacaattca gaccaccgtg gatagaggct tgctgttctt  
tgcagaaaaac  
3061 ggggatcgct tcataatctct aaatatagaa gatggcaagc tcattggtag  
atacaaactg  
3121 aattcagagc taccaaaaga gagaggagtt ggagacgcca taaacaacgg  
cagagaccat  
3181 tcgattcaga tcaaaattgg aaaactccaa aagcgtatgt ggataaatgt  
ggacgttcaa  
3241 aacactataa ttgatggtga agtattttagt ttcagcacat attatctggg  
aggaattcca  
3301 attgcaatca gggaaagatt taacatttct acgcctgctt tccgaggctg  
catgaaaaat  
3361 ttgaagaaaa ccagtggtgt cgtagattt aatgataactg tgggagtaac  
caaaaaagtgc  
3421 tcggaagact ggaagcttgt gcgatctgcc tcattctcca gaggaggaca  
atttaggttc  
3481 actgatttgg gcttaccacc tactgaccac ctccaggcct cattggatt  
tcagacctt  
3541 caacccagtg gcatattatt agatcatcag acatggacaa ggaacctgca  
ggtcactctg  
3601 gaagatggtt acattgaatt gagcaccagc gatagcggcg gcccaatttt  
taaatctcca  
3661 cagacgtata tggatggttt actgcattat gtatctgtaa taagcgacaa  
ctctggacta  
3721 cggcttctca tcgatgacca gcttctgaga aatagcaaaa ggctaaaaca  
catttcaagt  
3781 tcccgccagt ctctgcgtct gggcgggagc aatttttagg gttgtattag  
caatgtttt  
3841 gtccagaggt tatcaactgag tcctgaagtc ctagatttga ccagtaactc  
tctcaagaga  
3901 gatgtgtccc tgggaggctg cagttaaac aaaccacctt ttctaatgtt  
gcttaaaggat

FIG. 2A (CONT)

3961 tctaccaggt ttaacaagac caagacttt cgtatcaacc agctgttgc  
ggacacacca  
4021 gtggcctccc caaggagcgt gaagggtgtgg caagatgctt gctcaccact  
tcccaagacc  
4081 caggccaatc atggagccct ccagttggg gacattccca ccagccactt  
gctattcaag  
4141 cttcctcagg agctgctgaa acccaggtca cagttgctg tggacatgca  
gacaacatcc  
4201 tccagaggac tgggtttca cacgggcact aagaactcct ttatggctct  
ttatcttca  
4261 aaaggacgtc tggctttgc actggggaca gatggaaaaa aattgaggat  
caaaagcaag  
4321 gagaaatgca atgatggaa atggcacacg gtgggtttg gccatgatgg  
ggaaaaagggg  
4381 cgcttggttg tggatggact gagggcccg gaggaaagtt tgcctggaaa  
ctccaccatc  
4441 agcatcagag cgccagtttta cctggatca cctccatcag ggaaacccaa  
gagcctcccc  
4501 acaaacagct ttgtggatg cctgaagaac tttcagctgg attcaaaacc  
cttgtataacc  
4561 ctttcttcaa gcttcgggt gtcttcctgc ttgggtggc ctttggagaa  
aggcatttat  
4621 ttctctgaag aaggaggtca tgtcgtctg gctcactctg tattgttgg  
gccagaattt  
4681 aagcttgttt tcagcatccg cccaagaagt ctcactggga tcctaataca  
catcggaaagt  
4741 cagcccgga agcacttatg ttttacctg gaggcagggaa aggtcacggc  
ctctatggac  
4801 agtggggcag gtggaccc tcacgtcgac acaccaaagc agtctctgt  
tgatggacag  
4861 tggcactcgg tggcagtcac cataaaacaa cacatcctgc acctggaact  
ggacacagac  
4921 agtagctaca cagctggaca gatcccttc ccacctgcca gcactcaaga  
gccactacac  
4981 cttggaggtg ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa  
atcattctt  
5041 ggctgtctga ggaatattca tgtcaatcac atccctgtcc ctgtcactga  
agccttggaa  
5101 gtccaggggc ctgtcagtct gaatgggtgt cctgaccagt aacccaagcc  
tatttcacag  
5161 caaggaaatt caccttcaaa agcactgatt acccaatgca cttccctccc  
cagctcgaga  
5221 tcattcttca attaggacac aaaccagaca ggttaatag cgaatctaatt  
tttgaattct

**FIG. 2A (CONT)**

5281 gaccatggat acccatcaact ttggcattca gtgctacatg tgtatTTTat  
ataaaaaatcc  
5341 catttcttga agataaaaaaa attgttattc aaattgttat gcacagaatg  
tttttggtaa  
5401 tattaatttc cactaaaaaa ttaaatgtct ttt

**FIG. 2B**

MGWLWIFGAALGQCLGYSSQQQRVPFLQPPGSQLQASYVEFRP  
SQGCSPGYYRDHKGLYTGRCPNCNGHSNQCQDGSGICVNCQHNTAGEHCERCQEGY  
YGNAGHGSCRACPCPHTNSFATGCVVNGGDVRCSCKAGYTGTQCERCAPGYFGNPQKF  
GGSCQPCSCNSNGQLGSCHPLTGDCINQEPKDSSPAEECDDCDSCVMTLLNDLATMGE  
QLRLVKSQQLQGLSASAGLLEQMRHMETQAKDLRNQLLNYRSAISNHGSKIEGLERELT  
DLNQEFTLQEKAQVNSRKAQTLNNNVN RATQSAKELDVKIKNVIRNVHILLKQISGT  
DGEGNVPSGDFSREWAEAQRMMRELNRNFGKHLREAEADKRESQLLN RIRTWQKT  
HQGENNGLANSIRDSDLNEYEAKLSDLRARLQEAAQAKQANGLNQENERALGAIQRQV  
KEINSLQSDFTKYLTTADSSLQTNIALQLMEKSQKEYEKL AASLNEARQELSDKVRE  
LSRSAGKTSVLVEEAKHARSLQELAKQLEEIKRNASGDELVRCAVDAATAYENILNAI  
KAAEDAANRAASASESALQTVIKEDLPRKAKTLSSNSDKLLNEAKMTQKKLKQEVSPA  
LNNLQQTLNIVTVQKEVIDTNLTLRDGLHGIQRGDIDAMISSAKSMVRKANDITDEV  
LDGLNPIQTDVERIKDTYGRQNEDFKKALT DADNSVNKL TNKLPDLWRKIESINQQL  
LPLGNISDNMDRIRELIQQARDAAASKVAVPMRFNGKSGVEVRLPNDLEDLKGYTSLSL  
FLQRPNSEN GGTENMFVMYLGNKDASRDYIGMAVVDGQLTCVYNLGDR EAELOVDQI  
LTKSETKEAVMDRVKFQRIYQFARLNYTKGATSSK PETPGVYDMGRNSNTLLNLDPE  
NVVFYVGGYPPDFKLPSRLSFPPYKG CIELDDLNENVLSLYNFKKTFNLNTTEVEPCR  
RRKEESDKNYFEGTGYARVPTQPHAPIPTFGQTIQTTVDRGLLFFAENGDRFISLNIE  
DGKLMVRYKLNSELPKERGVGDAINNGRDHSIQIKIGKLQKRMWINVDVQNTI IDGEV

FIG. 2B (CONT)

FDFSTYYLGGIPIAIRERFNISTPAFRGCMKNLKKTSGVVRNLNDTVGVTKKCSEDWKL  
VRSASFSSRGQQLSFTDLGLPPTDHLQASFGQTFQPSGILLDHQTVTRNLQVTLEDGY  
IELSTSDDGGPIFKSPQTYMDGLLHYVSVISDNGLRLLIIDDQLLRNSKRLKHISSSR  
QSLRLGGSNFEGCISNVFVQRLSLSPEVLDLTSNSLKRDVSLGGCSLNKPPFLMLKG  
STRFNKTKTFRINQLLQDTPVASPRSVKVWQDACSPLPKTQANHGALQFGDIPTSHLL  
FKLPQELLKPRSQFAVDMQTTSSRGLVFHTGKNSFMALYLSKGRLVFALGTDGKKLR  
IKSKEKCNDGKWHTVVFGHDGEKGRLLVVDGLRAREGSLPGNSTISIRAPVYLGSPPSG  
KPKSLPTNSFVGCLKNFQLDSKPLYTPSSSGVSSCLGGPLEKGIYFSEEGGHVVALH  
SVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLCVYLEAGKVTASMDSGAGGTSTSV  
TPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPPASTQEPLHLGGAPANL  
TTLRIPVWKSFFGCLRNIHVNHIPPVTEALEVQGPVSLNGCPDQ

FIG. 2C

1 gcaggtccgg gaggcgcagg cggagagcgg cgggtgcccccc  
gagccccctct gcggacggct  
61 caggcgggag gaccccgccg ggctggatgg cggcggccgc gcggcctcg  
ggtcgggcac  
121 tggggccagt actgccgccc acgcccgtgc tcctgctggc actgcgggtg  
ctgccagcct  
181 gcggggcgac cgctcgggat cccggggccg cggccgggct cagccttcac  
ccgacttact  
241 tcaacctggc cgaggcggcg aggatttggg ccaccgccac ctgcgggag  
aggggaccccg  
301 gcgaggggag gcccagccc gagctctact gcaagttggc cggggggcccc  
accggcccg  
361 gcagcggcca caccatccag ggccagttct gtgactattg caattctgaa  
gaccggcaggaa  
421 aagcacatcc tgtcaccaat gccatcgatg gatctgaacg ttgggtggcaa  
agccctcccc  
481 tgtcctcagg cacacagtac aacagagtca acctcacctt ggatctgggg  
cagctttcc

FIG. 2C (CONT)

541 atgtggccta tatttaatc aaatttgcaa attctcctcg ccctgatctt  
tgggtcttgg  
601 aaagatctgt agactttgga agcacctact caccatggca atatttgct  
cattctaaag  
661 tagactgttt aaaagaattt gggcgggagg caaatatggc tgtcacccgg  
gatgatgatg  
721 tactttgtgt tactgaatat tcccgattt tacctttgga aaatggtgag  
gttgggtgt  
781 ccttgataaa cggtcgtcca ggtgaaaaaa atttacttt ctctcacacc  
ctgagggagt  
841 ttaccaaggc aacaaacatc cgcttgcgtt ttcttagaac caatacgctt  
cttggacacc  
901 tcatctccaa agcccagcga gatccaactg tcactcggcg gtattattac  
agcataaaagg  
961 acatcagcat tggggcag tgtgttgca atggccatgc tgaagtgtgc  
aatataaaaca  
1021 atcctgaaaaa actgtttcggttgtgaatgcc agcaccacac ctgtggggag  
acgtgtgatc  
1081 gctgctgcac agggtacaat cagagggcgtt ggccggccgc cgcttggag  
cagagccacg  
1141 agtgtgaagc atgcaactgc cacggccatg ccagcaactg ttactatgat  
ccagatgttg  
1201 agcggcagca ggcaagctt aataccagg gcatctatgc tggtgaggg  
gtctgcatta  
1261 actgtcagca caacacagct ggagtaaact gtgaacagtgc tgctaaggc  
tattaccggcc  
1321 cttatgggt tccagtggat gcccctgatg gctgcatccc ctgcagctgt  
gaccctgagc  
1381 atgcggatgg ctgtgaacag gttcaggcc gctgtcactg caagccaaat  
ttccacggag  
1441 acaactgtga gaagtgtgca attggataact acaatttccc atttgcttg  
agaattccca  
1501 ttttcctgt ttctacacca agttcagaag atccagtagc tggagatata  
aaagggtgtg  
1561 actgtaatct ggaaggtgtt ctccctgaaa tatgtgatgc ccacggacgg  
tgccctgtgcc  
1621 gccctgggt tgagggccct cgatgtgata cctgccgctc tggttctac  
tcattcccta  
1681 tttgccaagc ctgctgggt tcagccctt gatcctacca gatgccctgc  
agctcagtga  
1741 ctggacagtg tgaatgtcg ccaggagttt caggacagcg gtgtgacagg  
tgtctctcag  
1801 gagcttatga tttccccac tgccaaagggtt ccagcagtgc ttgtgacccca  
gtggatcca

FIG. 2C (CONT)

1861 tcaactccaa tttgggtat tgccaatgca agttcatgt tgaaggtcct  
actttagcc  
1921 gctcaaaact gttatattgg aatctggaca aagaaaaccc cagtggatgt  
tcagaatgca  
1981 agtgcataa ggcggaca gtgagtgaa ctggagagtg taggcaggga  
gatggtgact  
2041 gtcactgcaa gtcccatgtg ggtggcgatt cctgcgacac ctgtgaagat  
ggatatttg  
2101 ctttggaaaa gagcaattac tttgggtgtc aagggtgtca gtgtgacatt  
ggtggggcat  
2161 tgtcctccat gtgcagtggg ccctcggag tgtgccagtg ccgagagcat  
gtcgtggaa  
2221 aggtgtgcca gcggcctgaa aacaactact atttcccaga tttgcatcat  
atgaagtatg  
2281 agattgaaga cggcagcaca cctaattggga gagaccttcg atttggattt  
gatccgctgg  
2341 catttcctga gtttagctgg agaggatatg cccaaatgac ctcagtacag  
aatgatgtaa  
2401 gaataacatt gaatgttaggg aagtcaagtg gtccttgc tcgtgttatt  
ctgagatacg  
2461 ttaaccctgg aactgaagca gtatctggcc atataactat ttatccatcc  
tgggtgctg  
2521 ctcaaagcaa agagatcatc ttccctgcca gtaaggagcc agcctttgtc  
actgtccctg  
2581 gaaatggttt tgcagaccca ttttcaatca caccaggaat atgggttgct  
tgtattaagg  
2641 cagaaggagt cttctggat tacctgggtgc tgctccccag ggactactat  
gaaggctctg  
2701 tactgcagct gccagtcaca gaaccatgtg cctacgcagg acctccccaa  
gaaaattgct  
2761 tactctacca gcatttgcctt gtgaccagat tccctgtac cctggcttgc  
gaggccagac  
2821 acttcctgct tggatggggag ccaagacccg tggcagttag gcaagccaca  
cctgcacacc  
2881 ctgtcatgggt ggacctcagc gggagagagg tggaaattgca tctgcggctg  
cgcatccac  
2941 aggttggcca ctacgtggtt gtggcgtgatgattccacggaa ggcagctcag  
ctgtttgtgg  
3001 ttgatgtgaa tgtgaagagc tccgggtctg ttctggcagg ccaggtgaac  
atttacagct  
3061 gcaactacag tttctctgc cggagtgctg tgattgatca catgagccgc  
atcgccatgt  
3121 atgagctatt ggcagatgca gacattcagc tcaaggacaca catggcccgaa  
ttccttctgc

FIG. 2C (CONT)

3181 atcaagtttgc tatcatacctt attgaagaat tctcagctgat gtatgtgaga  
ccacaagtcc  
3241 actgcattgc cagttatgggg cgatttgcata atcaaagtgc cacctgtgtc  
tccttggccc  
3301 atgaaaactcc tccaaacagca ttaattttgg atgttctaag tggcaggcct  
ttccctcacc  
3361 tgccccagca gtcgtcacct tctgttgatg ttcttcctgg ggtcaccttg  
aaggcaccgc  
3421 agaatcaagt gaccctgaga ggacgtgtac cacacctgggg ccgataacgtc  
tttgcattcc  
3481 attttacca agcagcgcac ccgacgtttc ccgcgcaggt gtcgggtggat  
ggcgggtggc  
3541 cacgggcagg ctccttccat gcctctttt gccccatgt gcttggctgc  
cgggatcaag  
3601 tgattgccga aggccagatt gagtttgaca tctcagagcc tgaagtggcc  
gcaactgtga  
3661 aggttccaga aggaaagtcc ttgggtttgg tccgtgttct agtgggtgcct  
gcagaaaaact  
3721 atgactacca aataacttcac aaaaaatcca tggacaagtc actcgagttt  
atcaccatt  
3781 gtggaaaaaaa cagcttttac cttgacccccc agacagcctc cagattctgt  
aagaattccg  
3841 ccaggtccct ggtggccttt taccacaagg gcgcctgccc ttgtgagtg  
caccctactg  
3901 gggccaccgg ccctcactgc agccctgagg gtgggcagtg cccatgccag  
cccaacgtca  
3961 tcggggcggca gtgcacccgc tgtgcaacag gccactacgg attccacgc  
tgcaagccgt  
4021 gcagctgtgg tcggcgctt tgtgaagaga tgacggggca gtgccgctgc  
cctcccccga  
4081 cggtcaggcc ccagtgtgag gtgtgtgaga cacactcatt cagcttccac  
cccatggccg  
4141 gctgcgaagg ctgcaactgt tccaggaggg gcaccatcga ggctgccatg  
ccggagtgtg  
4201 accgggacag cgggcagtgc agatgcaagc ccagaatcac agggcggcag  
tgtgaccgat  
4261 gtgcttccgg gtttaccgc tttcctgagt gtgtccctg caattgcaac  
agagatggga  
4321 ctgagccagg agtgtgtgac ccagggaccg gggcttgcct ctgcaaggaa  
aatgtagaag  
4381 gcacagagtgt taatgtgtgt cgagaaggct cattccattt ggacccagcc  
aatctcaagg  
4441 gttgtaccag ctgtttctgt tttggagtaa ataatcaatg tcacagctca  
cataagcgaa

FIG. 2C (CONT)

4501 ggactaagtt tgtggatatg ctgggctggc acctggagac agcagacaga  
gtggacatcc  
4561 ctgtctctt caacccaggc agcaacagta tggtggcgga tctccaggag  
ctgcccgc当地  
4621 ccatccacag cgcgctctgg gtcgcaccca ctccttacccct gggggacaag  
gtttcttcat  
4681 atgggtgtta ctcacttac caagccaagt ctttggctt gcctggcgac  
atgggtcttc  
4741 tggaaaagaa gccggatgta cagctcactg gtcagcacat gtccatcatc  
tatgaggaga  
4801 caaacacccc acggccagac cggctgcatc atggacgagt gcacgtggtc  
gagggaaact  
4861 tcagacatgc cagcagccgt gccccagtgt ctagggagga gctgatgaca  
gtgctgtcta  
4921 gactggcaga tgtgcgcacca caaggcctct acttcacaga gactcaaagg  
ctcaccctga  
4981 gcgaggtggg gctagaggaa gcctctgaca caggaagtgg gcgcatacgca  
cttgctgtgg  
5041 aaatctgtgc ctgccccct gcctacgctg gtgactcttg tcagggttgt  
agccctggat  
5101 actatcgga tcataaaggc ttgtataaccg gacggtgtgt tccctgcaat  
tgcaacggac  
5161 attcaaatca atgccaggat ggctcaggca tatgtgttaa ctgtcagcac  
aacaccgc当地  
5221 gagagcactg tgaacgctgc caggaggct actatggcaa cgccgtccac  
ggatcctgca  
5281 gggcctgccc atgtcctcac actaacagct ttgccactgg ctgtgtggtg  
aatgggggag  
5341 acgtgcggtg ctccctgaaa gctgggtaca caggaacaca gtgtgaaagg  
tgtgcaccgg  
5401 gatatttcgg gaatccccag aaattcggag gtagctgcca accatgcagt  
tgtaacagca  
5461 atggccagct gggcagctgt catccccctga ctggagactg cataaacc  
gaacccaaag  
5521 atagcagccc tgcagaagaa tgtgatgatt ggcacagctg tgtgatgacc  
ctcctgaacg  
5581 acctggccac catggcgag cagctccgccc tggtaagtc tcagctgc当地  
ggcctgagtg  
5641 ccagcgcagg gcttctggag cagatgaggc acatggagac ccaggccaag  
gacctgagga  
5701 atcagttgct caactaccgt tctgccattt caaatcatgg atcaaaaata  
gaaggcctgg  
5761 aaagagaact gactgatttg aatcaagaat ttgagacttt gcaagaaaag  
gctcaagtaa

FIG. 2C (CONT)

5821 attccagaaa agcacaaaca ttaaacaaca atgttaatcg ggcaacacaa  
agcgaaaaag  
5881 aactggatgt gaagattaaa aatgtcatcc ggaatgtgca cattcttta  
aagcagatct  
5941 ctggacaga tggagaggga aacaacgtgc cttaggtga cttttccaga  
gagtgggctg  
6001 aagcccagcg catgatgagg gaactgcgg aacaggaactt tggaaagcac  
ctcagagaag  
6061 cagaagctga taaaagggag tcgcagctct tgctgaaccg gataaggacc  
tggcagaaaa  
6121 cccaccaggg ggagaacaat gggcttgcta acagtatccg ggattcttta  
aatgaatacg  
6181 aagccaaact cagtgacctt cgtgctcggc tgcaggaggc agctgccaa  
gccaaggcagg  
6241 caaatggctt gaaccaagaa aacgagagag ctttggagc cattcagaga  
caagtgaaag  
6301 aaataaattc cctgcagagt gatttcacca agtatctaac cactgcagac  
tcatctttgt  
6361 tgcaaaccaa cattgcgctg cagctgatgg agaaaagcca gaaggaatat  
gaaaaattag  
6421 ctgccagttt aaatgaagca agacaagaac taagtgacaa agtaagagaa  
ctttccagat  
6481 ctgctggcaa aacatccctt gtggaggagg cagaaaagca cgcgcggtcc  
ttacaagagc  
6541 tggcaaagca gctggaagag atcaagagaa acgccagcgg ggatgagctg  
gtgcgctgtg  
6601 ctgtggatgc cgccaccgccc tacgagaaca tcctcaatgc catcaaagcg  
gccgaggacg  
6661 cagccaacag ggctgccagt gcatctgaat ctgcctcca gacagtgata  
aaggaagatc  
6721 tgccaaagaaa agctaaaacc ctgagttcca acagtgataa actgttaaat  
gaagccaaga  
6781 tgacacaaaaa gaagctaaag caagaagtca gtccagctct caacaaccta  
cagcaaaccc  
6841 tgaatattgt gacagttcag aaagaagtga tagacaccaa tctcacaact  
ctccgagatg  
6901 gtcttcatgg gatacagaga ggtgatattg atgctatgtat cagtagtgca  
aagagcatgg  
6961 tcagaaaggc caacgacatc acagatgagg ttctggatgg gctcaacccc  
atccagacag  
7021 atgtggaaag aattaaggac acctatggga ggacacagaa cgaagacttc  
aaaaaggctc  
7081 tgactgatgc agataactcg gtgaataagt taaccaacaa actacctgat  
cttggcgca

FIG. 2C (CONT)

7141 agattgaaag tatcaaccaa cagctgtgc ccttggaaa catctctgac  
aacatggaca  
7201 gaatacgaga actaattcag caggccagag atgctgccag taaggttgct  
gtccccatga  
7261 ggttcaatgg taaatctgga gtcgaagtcc gactgccaaa tgacctggaa  
gatttcaaag  
7321 gatatacatc tctgtccttg tttctccaaa ggcccaactc aagagaaaat  
gggggtactg  
7381 agaatatgtt tgtgatgtac cttggaaata aagatgcctc ccgggactac  
atcggcatgg  
7441 cagttgtgga tggccagctc acctgtgtct acaacctggg ggaccgtgag  
gctgaactcc  
7501 aagtggacca gatcttgacc aagagtgaga ctaaggaggc agttatggat  
cggtgaaat  
7561 ttcagagaat ttatcagttt gcaaggctta attacaccaa aggagccaca  
tccagtaaac  
7621 cagaaacacc cggagtctat gacatggatg gtagaaatag caatacactc  
cttaatttgg  
7681 atcctgaaaaa ttttttattt tatgttggag gttaccacc tgattttaaa  
cttccagtc  
7741 gactaagttt ccctccatac aaagggttta ttgaatttga tgacctcaat  
gaaaatgttc  
7801 tgagcttgta caacttcaaa aaaacattca atctcaacac aactgaagtg  
gagcatttgta  
7861 gaaggaggaa ggaagagtca gacaaaaattt atttgaagg tacggctat  
gctcgagttc  
7921 caactcaacc acatgctccc atcccaaccc ttggacagac aattcagacc  
accgtggata  
7981 gaggcttgct gtttttgcg gaaaacgggg atcgcttcat atctctaaat  
atagaagatg  
8041 gcaagctcat ggtgagatac aaactgaattt cagagctacc aaaagagaga  
ggagttggag  
8101 acgccataaa caacggcaga gaccattcga ttcatcaaa aattggaaaa  
ctccaaaagc  
8161 gtatgtggat aaatgtggac gttcaaaaca ctataattga tggtaagta  
tttgatttca  
8221 gcacatatta tctgggagga attccaatttga caatcaggaa aagatttaac  
atttctacgc  
8281 ctgctttccg aggctgcatttga aaaaatttga agaaaaccag tgggtgcgtt  
agattgaatg  
8341 atactgtggg agtaaccaa aagtgcctgg aagactggaa gcttgcgt  
tctgcctcat  
8401 tctccagagg aggacaatttga agtttcaactg atttggcattt accacctact  
gaccaccc

FIG. 2C (CONT)

8461 aggcctcatt tggatttcag accttcaac ccagtggcat attattagat  
catcagacat  
8521 ggacaaggaa cctgcaggc actctggaag atggttacat tgaattgagc  
accagcgata  
8581 gcggcagccc aattttaaa tctccacaga cgtatatgga tggttactg  
cattatgtat  
8641 ctgtaataag cgacaactct ggactacggc ttctcatcga tgaccagctt  
ctgagaaata  
8701 gcaaaaggct aaaacacatt tcaagttccc ggcagtcctc gcgtctggc  
gggagcaatt  
8761 ttgagggttg tattagcaat gttttgtcc agaggttatac actgagtcct  
gaagtcctag  
8821 atttgaccag taactctctc aagagagatg tgcctctggg aggctgcagt  
ttaaacaaac  
8881 cacctttct aatgttgctt aaaggttcta ccaggtttaa caagaccaag  
actttcgtt  
8941 tcaaccagct gttgcaggac acaccagtgg cctcccaag gagcgtgaag  
gtgtggcaag  
9001 atgcttgctc accacttccc aagacccagg ccaatcatgg agccctccag  
tttggggaca  
9061 ttcccaccag ccacttgcta ttcaagcttc ctcaggagct gctgaaaccc  
aggcacagt  
9121 ttgctgtgga catcagaca acatcctcca gaggactggt gttcacacg  
ggcactaaga  
9181 actcctttat ggctctttat cttcaaaaag gacgtctggt cttgcactg  
gggacagatg  
9241 ggaaaaaaatt gaggatcaaa agcaaggaga aatgcaatga tggaaatgg  
cacacgggtgg  
9301 tttttggcca tggatgggaa aagggcgct tggttgtgga tggactgagg  
gccccgggagg  
9361 gaagtttgcc tggaaactcc accatcagca tcagagcgcc agttacctg  
ggatcacctc  
9421 catcagggaa accaaagagc ctccccacaa acagcttgc gggatgcctg  
aagaacttcc  
9481 agctggattc aaaacccttg tataccctt cttcaagctt cgggggtgtct  
tcctgcttgg  
9541 gtggtcctt ggagaaaggc atttatttct ctgaagaagg aggtcatgtc  
gtcttggctc  
9601 actctgtatt gttggggcca gaatttaagc ttgtttcag catccgccc  
agaagtctca  
9661 ctgggatcct aatacacatc ggaagtcagc ccgggaagca cttatgtgtt  
tacctggagg  
9721 cagggaaaggt cacggcctct atggacagtg gggcaggtgg gacctaacc  
tcggtcacac

FIG. 2C (CONT)

9781 caaaggcagtc tctgtgtgat ggacagtggc actcggtggc agtcaccata  
aaacaacaca  
9841 tcctgcaccc ggaactggac acagacagta gctacacacgc tggacagatc  
cccttcccac  
9901 ctgccagcac tcaagagcca ctacacccctg gaggtgctcc agccaaatttg  
acgacactga  
9961 ggatccctgt gtggaaatca ttcttggct gtctgagggaa tattcatgtc  
aatcacatcc  
10021 ctgtccctgt cactgaagcc ttggaagtcc aggggcctgt cagtctgaat  
ggttgtcctg  
10081 accagtaacc caaggctatt tcacagcaag gaaattcacc ttcaaaagca  
ctgattaccc  
10141 aatgcaccc cctccccagc tcgagatcat tcttcactca ggacacaaac  
cagacaggtt  
10201 taatagcgaa tctaattttg aattctgacc atggataccca atcactttgg  
cattcagtgc  
10261 tacatgtgta ttttatataa aaatcccatt tcttgaagat aaaaaaatttg  
ttattcaaat  
10321 tgttatgcac agaatgtttt tggttaatatt aatttccact aaaaaaattaa  
atgtcttttta  
10381 agaaacattc tttccactt gttaaaaaaa ttaaatatat ttaaagcac  
tttaagaata  
10441 tgaaactttc atatatgtta aaggattata atttatggaa ttaaaaaatg  
cagtgtagtc  
10501 cttaaaaaaaa a

FIG. 2D

MAAAARPRGRALGPVLPPPLLVLRLVPACGATARDPGAAAG  
LSLHPTYFNLAEAARIWATATCGERGPGEGRPQPELYCKLVGGPTAPGSGHTIQGQFC  
DYCNSEDPRKAHPVTNAIDGSERWWQSPPPLSSGTQYNRVNLTLGQLFHVAYILIKF  
ANSPRPDWLERSVDFGSTYSPWQYFAHSKVDCLKEFGREANMAVTRDDDVLCVTEY  
SRIVPLENGEVVVSILINGRPGAKNFTFSHTLREFTKATNIRLFLRTNTLLGHLISKA  
QRDPVTRRYYYSIKDISIGGQCVNGHAEVCNINNPEKLFRCQHHTCGETCDRCC  
TGYNQRRWRPAWEQSHECEACNCNCHHASNCYYDPDVERQQASLNTQGIYAGGGVCIN  
CQHNTAGVNCEQCAKGYYRPYGVVDAPDGCIPCSCDPEHADGCEQGSGRCHCKPNFH

FIG. 2D (CONT)

GDNCEKCAIGYYNFPFCLRIPIFPVSTPSSEDPVAGDIKGDCDNLEGVLPEICDAHGR  
CLCRPGVEGPRCDTCRSGFYSFPICQACWCSALGSYQMPCSSVTGQCECRPGVTGQRC  
DRCLSGAYDFPHCQGSSACDPAGTINSNLGYCQCKLHVEGPTCSRCKLLYWNLDKEN  
PSGCSECKCHKAGTVSGTGECRQGDGDCHCKSHVGGDSCDTCEDGYFALEKSNYFGCQ  
GCQCDIGGALSSMCSGPGVCQCREEHVGKVCQRPENNYFPDLHHMKYEIEDGSTPN  
GRDLRFGFDPLAFPEFSWRGYAQMTSVQNDVRITLNVGKSSGSLFRVILRYVNPGETA  
VSGHITIYPSWGAAQSKEIIFLPSKEPAFVTVPGNGFADPFSITPGIWACIKAEGVL  
LDYLVLLPRDYYEASVLQLPVTEPCAYAGPPQENCLLYQHLPVTRFPCTLACEARHFL  
LDGEPRPVAVRQPTPAHPVMVDLSGREVELHLRLRIPQVGHYVVVEYSTAAQLFVV  
DVNVKSSGSVLAGQVNIYSCNYSVLCRSAVIDHMSRIAMYELLADADIQLKGHMARFL  
LHQVCIIPIEEFSAEYVRPQVHCIASYGRFVNQSATCVSLAHETPPTALILDVLSGRP  
FPHLPQQSSPSVDLPGVTLKAPQNQVTLRGRVPHLGRYVFVIHFYQAAHPTFPAQVS  
VDGGWPRAGSFHASFCPHVLGCRDQVIAEGQIEFDISEPEVAATVKVPEGKSLVLVRV  
LVVPAENYDYQILHKKSDKSLEFITNCGKNSFYLDPQTASRFCKNSARSLVAFYHKG  
ALPCECHPTGATGPHCSPEGGQCPQPNVIGRQCTRCATGHYGFPRCKPCSCGRRLCE  
EMTGQCRCPRTVRPQCEVCETHSFSFHPMAGCEGCNCRRGTIEAAMPECDRDSGQC  
RCKPRITGRQCDRCASGFYRFPECVPCNCNRDGTEPGVCDPGTGACLCKENVEGTECN  
VCREGSFHLDPANLKGCTSCFCFGVNNQCHSSHKRRTKFVDMLGWHLETADRVDIPVS  
FNPGSNMVA\_DLQELPATIHSASWVAPTSYLGDKVSSYGGYLTYQAKSFGLPGDMVLL  
EKKPDVQLTGQHMSIIYEETNTPRPDRLHHGRVHVVEGNFRHASSRAPVSREELMTVL  
SRLADVRIQGLYFTETQRLTLSEVGLEEASDTGSGRIALAVEICACPPAYAGDSCQGC  
SPGYYRDHKGLYTGRCPNCNGHSNQCQDGSGICVNCQHNTAGEHCERCQEGYYGNA

FIG. 2D (CONT)

VHGSCRACPCPHTNSFATGCVVNGGDVRCSCAGYTGTQCERCAPGYFGNPQKFGGSC  
QPCSCNSNGQLGSCHPLTGD CINQEPKDSSPAEECDCDSCVMTLLNDLATMGEQLRL  
VKSQQLQGLSASAGLLEQMRHMETQAKDLRNQLNYRSAISNHGSKIEGLERE L TDLNQ  
EFETLQEKAQVNSRKAQTLNNNVNRATQSAKELDVKIKNVIRNVHILLKQISGTDGEG  
NNVPSGDFSREWAEAQRMMRELNRNRFGKHLREAEADKRESQLLNRIRTWQKTHQGE  
NNGLANSIRDSLNEYAKLSDLRARLQEAAAQAKQANGLNQENERALGAIQRQVKEIN  
SLQSDFTKYLTTADSSLLQTNIALQLMEKSQKEYKLAASLNEARQELSDKVRELSRS  
AGKTSVLVEEAEKHARSLQELAKQLEEIKRNASGDELVRCAVDAATA YENILNAIKA  
DAANRAASASESALQTVIKEDLPRKAKTLSSNSDKLLNEAKMTQKKLKQEVS PALNNL  
QQTLNIVTVQKEVIDTNLTLRDGLHGIQRGDIDAMISSAKSMVRKANDITDEVLDGL  
NPIQTDVERIKDTYGR TQNEDFKKALTDADNSVNKL TNKL PDLWRKIESINQQLLPLG  
NISDNMDRIRELIQQARDAASKVAVPMRFNGKSGVEVRLPNDLEDLKGYTSLSLFLQR  
PNSRENGGTENMFVMYLGNKDASRDYIGMAVVDGQLTCVYNLGDR EAE LQVDQILT  
KS ETKEAVMDRVKFQRIYQFARLN YTKGATSSK PETPGVYDM DGRNSNTLLNLDPE  
NVVF YVGGYPPDFKLPSRLSFPPYKG CIELDDL NENVLSLYNFKKT  
FNLNTTEVEPCRRKE ESDKNYFEGTGYARVPTQPHAPIPTFGQTIQTT  
VDRG LFFAENGDRFISLNIEDGKL MVR YKLNSELPK  
ERGVGDAINNGRDHSIQIKIGKLQKRMW  
INVDVQNTIIDGEVFDFSTYYLGGIPIAIRERFNISTPAFRGCM  
KLNKKTSGVVR  
LNDTVGVTKKCS  
EDWKLVRSA SFSRG  
GQLSFTDLGLP  
PTDHLQASFG  
QTFQPSG  
GILLDH  
QTWTRNLQV  
TLEDGY  
IELS TSDSG  
S P  
I FK  
SP  
QTYMD  
GLLHY  
VS  
VI  
SDNS  
GLR  
LL  
I  
DDQ  
LLR  
NS  
KRL  
KHI  
SSR  
QSLR  
LGGS  
NFE  
GC  
IS  
NV  
FV  
QRL  
SLS  
PEV  
LDL  
TS  
NSL  
KRD  
VSL  
GGC  
SLN  
KPP  
FLM  
LLKG  
STRF  
NKT  
KT  
FRI  
NQ  
LLQ  
DTP  
V  
A  
SP  
RSV  
KV  
WQ  
D  
AC  
SPL  
PKT  
QAN  
HG  
ALQ  
FG  
DI  
PT  
SH  
LLF  
KLP

FIG. 2D (CONT)

QELLKPRSQFAVDMQTTSSRGLVFHTGKNSFMALYLSKGRNVFALGTDGKKLRIKSK  
EKCNDGKWHTVVFGHDGEKGRNVVDGLRAREGSLPGNSTISIRAPVYLGSPPSGKPKS  
LPTNSFVGCLKNFQLDSKPLYTPSSSGVSSCLGGPLEKGIYFSEEGGHVVLAVSVLL  
GPEFKLVFSIRPRS LTGILIHIGSQPGKHL CVYLEAGKVTASMDSGAGGTSTS VTPKQ  
SLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPPASTQEPLHLGGAPANLTLR  
IPVWKSFFGCLRNIHVNHIPVPVTEALEVQGPVSLNGCPDQ"

FIG. 2E

1 gggatgcctc cagcagttag gcggtcagcc tgcagcatgg gatggctgtg  
gatctttggg  
61 gcagccctgg ggcagtgtct gggctacagt tcacagcagc aaagggtgcc  
atttcttcag  
121 cctcccggtc aaagtcaact gcaagcgagt tatgtggagt ttagacccag  
ccagggttgt  
181 agccctggat actatcgga tcataaaaggc ttgtataccg gacggtgtgt  
tccctgcaat  
241 tgcaacggac attcaaatac atgccaggat ggctcaggca tatgtgttaa  
ctgtcagcac  
301 aacaccgcgg gagagcactg tgaacgctgc caggaggcactatggcaa  
cgccgtccac  
361 ggatcctgca gggcctgccc atgtcctcac actaacagct ttgccactgg  
ctgtgtggtg  
421 aatggggag acgtgcggtg ctcctgcaaa gctgggtaca caggaacaca  
gtgtgaaagg  
481 tgtgcaccgg gatattcgg gaatccccag aaattcggag gtagctgcc  
accatgcagt  
541 tgtaacagca atggccagct gggcagctgt catcccctga ctggagactg  
cataaaccac  
601 gaacccaaag atagcagccc tgcagaagaa tgtgatgatt gcgacagctg  
tgtgatgacc  
661 ctcctgaacg acctggccac catgggcgag cagctccgcc tggtaagtc  
tcagctgcag  
721 ggcctgagtg ccagcgcagg gcttctggag cagatgaggc acatggagac  
ccaggccaag  
781 gacctgagga atcagttgct caactaccgt tctgccattt caaatcatgg  
atcaaaaata

FIG. 2E (CONT)

841 gaaggcctgg aaagagaact gactgattt aatcaagaat ttgagacttt  
gcaagaaaaag  
901 gctcaagtaa attccagaaa agcacaaca ttaaacaaca atgttaatcg  
ggcaacacaa  
961 agcgcaaaag aactggatgt gaagattaaa aatgtcatcc ggaatgtgca  
cattcttta  
1021 aagcagatct ctggacaga tggagaggga aacaacgtgc cttcaggtga  
cttttccaga  
1081 gagtgggctg aagcccagcg catgatgagg gaactgcgga acaggaactt  
tggaaagcac  
1141 ctcagagaag cagaagctga taaaagggag tcgcagctct tgctgaaccg  
gataaggacc  
1201 tggcagaaaa cccaccaggg ggagaacaat gggcttgcta acagtatccg  
ggattctta  
1261 aatgaatacg aagccaaact cagtgacctt cgtgctcggc tgcaggaggc  
agctgccaa  
1321 gccaaggcagg caaatggctt gaaccaagaa aacgagagag ctttggagc  
cattcagaga  
1381 caagtgaaag aaataaattc cctgcagagt gatttcacca agtatctaac  
cactgcagac  
1441 tcatactttgt tgcaaaccaa cattgcgcgt cagctgatgg agaaaagcca  
gaaggaatat  
1501 gaaaaattag ctgccagttt aaatgaagca agacaagaac taagtgacaa  
agtaagagaa  
1561 cttccagat ctgctggcaa aacatccctt gtggaggagg cagaaaagca  
cgcgccgtcc  
1621 ttacaagagc tggcaaagca gctgaaagag atcaagagaa acgccagcgg  
ggatgagctg  
1681 gtgcgcgtgt ctgtggatgc cgccaccgccc tacgagaaca tcctcaatgc  
catcaaagcg  
1741 gcccaggacg cagccaacag ggctgccagt gcatctgaat ctgccctcca  
gacagtgata  
1801 aaggaagatc tgccaaagaaa agctaaaacc ctgagttcca acagtataa  
actgttaaat  
1861 gaagccaaaga tgacacaaaaa gaagctaaag caagaagtca gtccagctct  
caacaaccta  
1921 cagcaaaccc tgaatattgt gacagttcag aaagaagtga tagacaccaa  
tctcacaact  
1981 ctccgagatg gtcttcattgg gatacagaga ggtgatattg atgctatgtat  
cagtagtgca  
2041 aagagcatgg tcagaaaggc caacgacatc acagatgagg ttctggatgg  
gctcaacccc  
2101 atccagacag atgtggaaag aatthaaggac acctatggga ggacacagaa  
cgaagacttc

FIG. 2E (CONT)

2161 aaaaaggctc tgactgatgc agataactcg gtgaataagt taaccaacaa  
actacacctgat  
2221 ctttggcgca agattgaaag tatcaaccaa cagctgttgc ccttggaaa  
catctctgac  
2281 aacatggaca gaatacgaga actaattcag caggccagag atgctgccag  
taaggttgct  
2341 gtccccatga gttcaatgg taaatctgga gtcgaagtcc gactgccaaa  
tgacacctgaa  
2401 gatttggaaag gatatacatc tctgtccttg tttctccaaa ggcccaactc  
aagagaaaat  
2461 ggggttactg agaatatgtt tgtatgtac cttggaaata aagatgcctc  
ccgggactac  
2521 atcggcatgg cagttgtgga tggccagctc acctgtgtct acaacctggg  
ggaccgtgag  
2581 gctgaactcc aagtggacca gatcttgacc aagagtgaga ctaaggaggc  
agttatggat  
2641 cgggtgaaat ttcagagaat ttatcagttt gcaaggctta attacaccaa  
aggagccaca  
2701 tccagtaaac cagaaacacc cggagtctat gacatggatg gtagaaatag  
caatacactc  
2761 cttaatttgg atcctgaaaa ttttttattt tatgttggag gttacccacc  
tgattttaaa  
2821 cttccagtc gactaagttt ccctccatac aaagggttgc ttgaattaga  
tgacacct  
2881 gaaaatgttc tgagcttgta caacttcaaa aaaacattca atctcaacac  
aactgaagt  
2941 gagccttgta gaaggaggaa ggaagagtca gacaaaaattt attttgaagg  
tacgggctat  
3001 gctcgagttc caactcaacc acatgctccc atcccaacct ttggacagac  
aattcagacc  
3061 accgtggata gaggcttgct gttcttgca gaaaacgggg atcgcttcat  
atctctaaat  
3121 atagaagatg gcaagctcat ggtgagatac aaactgaatt cagagctacc  
aaaagagaga  
3181 ggagttggag acgccataaa caacggcaga gaccattcga ttcagatcaa  
aattggaaaa  
3241 ctccaaaagc gtatgtggat aaatgtggac gttcaaaaca ctataattga  
tggtgaagta  
3301 tttgatttca gcacatatta tctggagga attccaatttga caatcaggga  
aagatttaac  
3361 atttctacgc ctgcttccg aggctgcattg aaaaatttgc agaaaaccag  
tgggtgtcggt  
3421 agattgaatg atactgtggg agtaaccaa aagtgcctgg aagactggaa  
gcttgtcgca

FIG. 2E (CONT)

3481 tctgcctcat tctccagagg aggacaattg agtttcactg atttgggctt  
accacacact  
3541 gaccacctcc aggccctcatt tggatttcag acctttcaac ccagtggcat  
attatttagat  
3601 catcagacat ggacaaggaa cctgcaggtc actctggaag atggttacat  
tgaattgagc  
3661 accagcgata gcggcagccc aattttaaa tctccacaga cgtatatgga  
tggtttactg  
3721 cattatgtat ctgtaataag cgacaactct ggactacggc ttctcatcga  
tgaccagctt  
3781 ctgagaaaata gcaaaaaggct aaaacacatt tcaagttccc ggcagtc  
gcgtctggc  
3841 gggagcaatt ttgagggttg tattagcaat gttttgtcc agaggttac  
actgagtcct  
3901 gaagtcctag atttgaccag taactctctc aagagagatg tgtccctgg  
aggctgcagt  
3961 ttaaacaaac cacctttct aatgttgctt aaaggttcta ccaggtttaa  
caagaccaag  
4021 acttttcgta tcaaccagct gttgcaggac acaccagtgg cctcccaag  
gagcgtgaag  
4081 gtgtggcaag atgcttgctc accacttccc aagacccagg ccaatcatgg  
agccctccag  
4141 tttggggaca ttcccaccag ccacttgcta ttcaagcttc ctcaggagct  
gctgaaaccc  
4201 aggtcacagt ttgctgtgga catgcagaca acatcctcca gaggactggt  
gtttcacacg  
4261 ggcactaaga actcctttat ggctctttat cttcaaaaag gacgtctgg  
ctttgcactg  
4321 gggacagatg gaaaaaaatt gaggatcaa agcaaggaga aatgcaatga  
tggaaatgg  
4381 cacacggtgg tggttgcca tcatggggaa aagggcgct tggttggt  
tggactgagg  
4441 gcccgggagg gaagtttgcc tggaaactcc accatcagca tcagagcgcc  
agtttacctg  
4501 ggatcacctc catcagggaa accaaagagc ctccccacaa acagcttgc  
ggatgcctg  
4561 aagaactttc agctggattc aaaacccttgc tataccctt cttcaagctt  
cggggtgtct  
4621 tcctgcttgg gtggccttt ggagaaaaggc atttatttct ctgaagaagg  
aggtcatgtc  
4681 gtcttggctc actctgtatt gttggggcca gaatttaagc ttgtttcag  
catccggcc  
4741 agaagtctca ctgggatcct aatacacatc ggaagtcagc ccgggaagca  
cttatgtgtt

FIG. 2E (CONT)

4801 tacctggagg caggaaggt cacggcctct atggacagtg gggcaggtgg  
gacctaaccg  
4861 tcggtcacac caaagcagtc tctgtgtgat ggacagtggc actcggtggc  
agtaccata  
4921 aaacaacaca tcctgcacct ggaactggac acagacagta gctacacagc  
tggacagatc  
4981 cccttcccac ctgccagcac tcaagagcca ctacaccctg gaggtgctcc  
agccaatttg  
5041 acgacactga ggatccctgt gtggaaatca ttctttggct gtctgaggaa  
tattcatgtc  
5101 aatcacatcc ctgtccctgt cactgaagcc ttggaagtcc aggggcctgt  
cagtctgaat  
5161 gttgtcctg accagtaacc caagcctatt tcacagcaag gaaattcacc  
ttcaaaagca  
5221 ctgattaccc aatgcacctc cctccccagc tcgagatcat tcttcactca  
ggacacaaac  
5281 cagacaggtt taatagcgaa tctaattttg aattctgacc atggatacc  
atcactttgg  
5341 cattcagtgc tacatgtgta ttttatataa aaatcccatt tcttgaagat  
aaaaaaaaattg  
5401 ttattcaaat tgttatgcac agaatgttt tgtaatatt aattccact  
aaaaaaaaattaa  
5461 atgtctttta agaaacattc tttccactt gttaaaaaaaaa ttaaatatat  
tttaaagcac  
5521 tttaagaata tgaaacttcc atatatgtta aaggattata atttatggaa  
ttaaaaaaaaatg  
5581 cagtgtagtc cttaaaaaaaaa a

FIG. 2F

MPPAVRRSACSMGWLWIFGAALGQCLGYSSQQQRVPFLQPPGQS  
QLQASYVEFRPSQGCSPGYYRDHKGLYTGRCPNCNGHSNQCQDGSGICVNCQHNTA  
GEHCERCQEGYYGNAVGSCRACPCPHTNSFATGCVVNGGDVRCSCSKAGYTGTQCERC  
APGYFGNPQKFGGSCQPCSCNSNGQLGSCHPLTGDCINQEPKDSSPAEECDDCDSCVM  
TLLNDLATMGEQLRLVKSQQLQGLSASAGLLEQMRHMETQAKDLRNQLLNYRSAISNHG  
SKIEGLERELTDLNQEFTLQEKAQVNSRKAQTLNNNVN RATQSAKELDVKIKNVIRN  
VHILLKQISGTDGEGNNVPSGDFSREWAEQRMMRELNRNFGKHLREAEADKRESQL

FIG. 2F (CONT)

LLNRIRTWQKTHQGENNGLANSIRDSDLNEYEAKLSDLRARLQEAAAQAKQANGLNQEN  
ERALGAIQRQVKEINSLQSDFTKYLTTADSSLQTNIALQLMEKSQKEYKLAASLNE  
ARQELSDKVRELSRSAGKTSLVVEAEKHARSLQELAKQLEEIKRNASGDELVRCAVDA  
ATAYENILNAIKAAEDAANRAASASESALQTVIKEDLPRKAKTLSSNSDKLLNEAKMT  
QKKLKQEVPALNNLQQTLNIVTVQKEVIDTNLTLRDGLHGIQRGIDAMISSAKSM  
VRKANDITDEVLDGLNPIQTDVERIKDTYGRQNEDFKKALTADNSVNKLTKLPDL  
WRKIESINQQLLPLGNISDNMDRIRELIQQARDAAASKVAVPMRFNGKSGVEVRLPNDL  
EDLKGYTSLSLFLQRPNSRENGGTENMFVMYLGNKDASRDYIGMAVVDGQLTCVYNLG  
DREAELOVDQILTKSETKEAVMDRVKFQRIYQFARLNFTKGATSSKPETPGVYDMGR  
NSNTLLNLDPENVVFYVGGYPPDFKLPSRLSFPPYKGCIELDDLNENVLSLYNFKKTF  
NLNTTEVEPCRRKEESDKNYFEGTGYARVPTQPHAPIPTFGQTIQTTVDRGLLFFAE  
NGDRFISLNIEDGKLMVRYKLNSELPKERGVGDAINNGRDHSIQIKIGKLQKRMWINV  
DVQNTIIDGEVFDFSTYYLGGIPIAIRERFNISTPAFRGCMKNLKKTSGVVRLNDTVG  
VTKKCSEDWKLVRSAFSRGQQLSFTDLGLPPTDHLQASFQFQPSGILLDHQTWT  
RNLQVTLEDGYIELSTS DSGSPIFKSPQTYMDGLLHYVSVISDNSGLLLIDDQLLRN  
SKRLKHISSSRQSLRLGGSNFEGCISNVFVQRLSLSPEVLDLTSNSLKRDVSLGGCSL  
NKPPFLMLLGSTRFNKTFRINQLLQDTPVASPRSVKVWQDACSPLPKTQANHGAL  
QFGDIPTSHLLFKLPQELLKPRSQFAVDMQTSSRGLVFHTGTKNSFMALYLSKGRLV  
FALGTDGKKLRIKSKECNDGKWHTVVFGHDGEKGRLLVDGLRAREGSLPGNSTISIR  
APVYLGSPPSGKPKSLPTNSFVGCLKNFQLDSKPLYTPSSSGVSSCLGGPLEKGIYF  
SEEGGHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAGKVTASM  
DSGAGGTSTS VTPKQSLCDGQWHSVAVTIKQHILHLELDSSYTAGQIPFPPASTQE

FIG. 2F (CONT)

PLHLGGAPANLTLRIPVWKSFFGCLRNIHVNHIPVPVTEALEVQGPVSLNGCPDQ

FIG. 2G

1 gtataagagg aagaacacaa aggttgcag cagccaggca gaacaccaag  
ggatcaagat  
61 gccgcctaca gtgaggtggc cagcctggc cacaggatgg ctgtggatct  
ttggggcagc  
121 tctggccag tgcctgggt atggctcaga gcagcaaagg gtagcatttc  
ttcagcatcc  
181 agggcaaaac catctgcaag caagttatat ggagcttaga cccagccagg  
gctgtcgccc  
241 aggatactat cgagacatca aaagcttccc tgccggagg tctgtccct  
gcaattgcaa  
301 cggacattca aatagatgcc aagacggctc gggagtgtgc attaactgtc  
agcacaacac  
361 agctggggag cactgtgagc gttgcaagag gggttactat ggaagcgcca  
tccatggatc  
421 ctgcagggtt tgccctgtc ctcacaccaa cagcttgcc actggctgtg  
ctgtggatgg  
481 aggagctgtg aggtgtgcct gcaaaccgg atacacagga gcacagtgtg  
agaggtgtgc  
541 accaggatat tttggaaacc cccagaaatt tggaggttagc tgccaaccat  
gcaattgcaa  
601 cagtaatggc cagttggca cttgtatcc cctaactgga gactgtgtaa  
gccaagaacc  
661 caaagatggc agccctgcag aagaatgtga tgactgtgac agctgtgtga  
tgactctcct  
721 aaatgacttg gtcccatgg gtgaggaact cgcctggc aaatcaaaac  
ttcagggct  
781 gagtgtgaac actgggtctc tggacagat ccggcatgtg gagatgcagg  
ccaaggaccc  
841 gaggaaccag ctgcttggct tccgttccgc catctccagt cacgggtccc  
aaatggacgg  
901 cctggaaaaaa gaactcagtc atttgcacca ggaattcgaa actttgcaag  
aaaaggcgca  
961 ggtcaattcc agaaaagcac aaacattata taacaacatc gatacgacaa  
tccaaaacgc  
1021 caaagagttg gacatgaaga ttaaaaacat acttacgaat gtgcacattc  
tcctgaagca  
1081 gatcgctcg ccaggtggag aaggaatgga cttgcgggtg ggcgactggt  
ccagggatc

FIG. 2G (CONT)

1141 ggccgaagct cagcgcgt tgccggagct gcgaggccga gactttaaaa  
agcacctcca  
1201 agaagcagag gcccagaaaa tggaaagccca gctcttactg aaccgaatca  
ggacacctggct  
1261 ggaatcccac caggtggaga acaatggact gctaaagaat attcgggatt  
cattaaatga  
1321 ttatgaagcc aaacttcagg acctgcgttc cgtgcttcag gaggcggcag  
cccaggaaaa  
1381 gcaggctaca ggcctcaacc acgaaaatga gggggtccta ggagccatcc  
agagacaaat  
1441 gaaggaaatg gattccctga agaagtacct caccgagcac ctggccacag  
cagacgcctc  
1501 cctgctgcaa accaacagtc tactgcagcg gatggacacg agccagaagg  
agtatgaaag  
1561 cttagctgct gctttaaacg gagcaagaca ggaactgaat gaccaagtgc  
ggaaactctc  
1621 cagatccgga ggcaaagcac ccctgggtggc tgaggccgag aagcacgctc  
agtctttaca  
1681 ggagctggca aagcagctgg aagagataaa gagaaacacc agtggggatg  
agtccgtgcg  
1741 ctgtgtcgtg gacgctgcca ctgcctatga gagcatcctc aacgccatcc  
gagcagcaga  
1801 ggatgcagcc ggcaaggccg acagtgcctc agagtccgcc ttccagacag  
tgataaagga  
1861 agatcttccg agaagagcca aaaccctgag ttctgacagc gaggaactgt  
taaacgaggg  
1921 caagatgaca cggaaaaggc tacagcaaga aatcaatcca gctctcaaca  
gcctacagca  
1981 aaccctgaag actgtatcag ttcagaagga cctgcttagat gccaatgtca  
ctgctgtccg  
2041 taatgacctt cgtggatcc agagaggtga tattgacagt gtggtgagtg  
gagcgaagag  
2101 catggtcagg aaagccaatg ggataacgag cgaggtcctg gacgggctca  
gccccatcca  
2161 gacggatttg ggaaggatta aggacagcta cgggagcaca cggcatgagg  
acttcaacaa  
2221 agctctgatt gacgccaata actcagtaaa gaaattaacc aagaagttgc  
ctgatcttt  
2281 tgtcaagatt gaaagcatca atcaacagtt gctgcccctg ggaaacatct  
ctgacaatgt  
2341 agaccgaatc cgagagctca ttacgcaggc cagagatgct gcgaacaagg  
ttgcaattcc  
2401 catgaggttc aatggtaat ctgggttga agtccgtctg ccaaattgacc  
tagaagactt

FIG. 2G (CONT)

2461 gaagggatac acgtctctgt ctttgttcct ccaaagacca gacttaagag  
agaatggagg  
2521 cactgaggac atgtttgtaa tgtacccctgg aaacaaggat gcctccaagg  
actacatcg  
2581 catggcggtt gtagatggcc agctgacgtg tgtctacaac ctgggggacc  
gagaagctga  
2641 agttcagatc gatcaggtcc tgacggagag tgagtctcag gaggcagtt  
tggaccgggt  
2701 gaagttccag agaatatatc aatttgccaa gcttaattac accaaagaag  
ccacgtccaa  
2761 taaacccaaa gctcccgccg tctacgacct ggagggtggc agtagcaaca  
cgctccttaa  
2821 tttggatccc gaggacgctg tgtttatgt cggaggttac ccaccggatt  
ttgaacttcc  
2881 tagcagactg cggttccctc catacaaagg ctgtatcgaa ctagatgacc  
tcaatgaaaa  
2941 cgttctaagc ttgtacaatt tcaagacaac tttcaatctc aacaccacgg  
aggtggagcc  
3001 ttgttaggagg agaaaggaag agtcagacaa aaattacttt gaaggtacag  
gctatgctg  
3061 catccctact caaccaaatg ctcccttccc aaacttcata cagaccatcc  
agactactgt  
3121 ggacagaggt ttactgttct tcgcagaaaa ccaggataac ttcatatctc  
tgaacataga  
3181 agatggcaat ctcatggtga gatacaaact aaattcagag ccacccaaag  
agaagggaaat  
3241 tcgagacacc atcaacgatg ggaaagatca ttcatatctt atcacaattt  
gaaaactaca  
3301 aaaacgcatg tggataaatg tgaacgaacg cagtgtacga atcgaagggg  
aaatatttga  
3361 tttcagcaca tattatgg gcggattcc aattgcaatc agagaaaggt  
ttaacatctc  
3421 aacgcctgct ttccaaggct gcatgaagaa tctgaagaaa accagtgggg  
ttgtcagggt  
3481 gaatgatact gtgggtgtaa ccaagaagtg ctcagaagac tggaagctt  
tgcaaccgc  
3541 ctgttctcc agaggaggc agatgagctt tacaaacttgc gacgtgcct  
cgactgaccg  
3601 cttccagctc tcctttgggt ttcagacctt tcaacccagt ggcacactgc  
tcaatcatca  
3661 gacgcggaca agcagcctgc tggtcaccct ggaagatggg cacattgagt  
tgcacttag  
3721 ggacagcaac atcccaattt tcaagtctcc agggacctac atggacgggt  
tactgcata

FIG. 2G (CONT)

3781 tgtatctgta ataagtgaca cctcaggtct ccgccttctc atcgatgacc  
aggtcctgag  
3841 aaggaaccag aggcttccta gcttctctaa cgcccagcag tcgctccgccc  
ttggaggagg  
3901 tcatttcgag gttgttatca gcaatgtttt agtccaaagg tttcacaga  
gtccagaagt  
3961 cctggatctg gccagtaaat ctaccaagaa ggatgcattcc ctaggaggct  
gcagttaaa  
4021 caagccacct tttcttatgt tgtttaaaag tcccaagaga tttaacaagg  
gccggatttt  
4081 caatgttaat cagctgatgc aagatgcacc tcaggccaca aggagcacag  
aggcttggca  
4141 agatgggagg tcctgcctac cacctctgaa caccaaggcc tctcacagag  
ccctgcagtt  
4201 tggagacagc cccaccagcc acttgctact caagcttccc caggaactgc  
tgaaacctag  
4261 gtcacagttt tcttagaca tacagacaac ttccccaaa ggactgggt  
tttacgcagg  
4321 caccaaggac tccttcctgg ctctttatgt cgcatggc cgtgttgtct  
ttgctttggg  
4381 ggcaggaggg aagaaactga gactcaggag caaggagaga taccatgacg  
ggaagtggca  
4441 cacgggtggtg ttcggactaa atggagggaaa ggcacgcctg gttgtggatg  
ggctaagggc  
4501 ccaggaaggc agttgcctg gaaattctac catcagcccc agagaacagg  
tttacctagg  
4561 gttgccgcta tcaagaaagc caaagagcct accccagcac agttttgtgg  
ggtgccctgag  
4621 agattccag ttgaactcga aaccctgga ttctccttct gcgaggttg  
gggtatctcc  
4681 ctgcttgggt ggctctttag agaaaggcat ttatttctcc caaggaggag  
gcatgtgat  
4741 cctagccaat tctgtgtcct tggggccaga gcttaagctc actttcagca  
ttcgccccacg  
4801 gagtctcact ggggtcttaa tacacgtcg aagtcaatct ggacagcgct  
taagtgtgta  
4861 catggaggca ggaaaggtca caacctctgt gagcagtgtat gcaggaggaa  
gtgtgacatc  
4921 aattacaccg aagcagtctc tgtgtgatgg acagtggcac tcgggtggcag  
tctccattaa  
4981 acagcgcattc ctgcattctag aactggatac agacagtagc tacacagtcg  
caccacttc  
5041 cttctcacca aacagcaccc gagggtcact gcacgtcgaa ggtgtcccag  
acaaattgaa

FIG. 2G (CONT)

5101 aatgcttaca ctccctgtgt ggaactcatt ttttggctgt ctgaagaata  
ttcaagtcaa

5161 ccatgtccct gtccccatca cagaagccac agaagtccaa gtttctgtca  
gcctgaatgg

5221 ctgccctgac cactaaccct acacagcaag attcaccttt ggag

FIG. 2H

MPPTVRWSAWCTGWLWIFGAALGQCLGYGSEQQRVAFLQHPGQN

HLQASYMELRPSQGCRPGYYRDIKSFPAGRSVPCNCNGHSNRCQDGSGVCINCQHNTA

GEHCERCKRGYYGSAIHGSCRVCPCHTNFSATGCAVDGGAVRCACKPGYTGAQCERC

APGYFGNPQKFGGSCQPCNCNSNGQFGTCDPLTGDCVSQEPKDGSPAEECDDCDSCVM

TLLNDLVPGEELALVKSQIQLQGLSVNTGSLEQIRHVEMQAKDLRNQLLGFRSAISSHG

SQMDGLEKELSHLYQEFETLQEKAQVNSRKAQTLNNIDTTIQAQELDMKIKNILTN

VHILLKQIARPGGEGMDLPVGDWSRESAEAQRMLRELGRDFKKHLQEAEAQKMEAQL

LLNRIRTWLESHQVENNGLKNIRDLSNDYEAKLQDLRSVLQEAAAQGKQATGLNHEN

EGVLGAIQRQMKEMDSLKKYLTEHLATADASLLQTNSLLQRMDTSQKEYESLAAALNG

ARQELNDQVRELSRSGGKAPLVAEAEKHAQSLQELAKQLEEIKRNTSGDESVRCVVDA

ATAYESILNAIRAAEDAAGKADSASESAFQTVIKEDLPRRAKTLSSDSEELLNEAKMT

RKRLQQEINPALNSLQQTLKTVSVQKDLLDANVTAVRNDLRGIQRGDIDSVVSGAKSM

VRKANGITSEVLDGLSPIQTDLGRIKDSYGSTRHEDFNKALIDANNSVKKLTKLPDL

FVKIESINQQLLPLGNI SDNVDRIRELITQARDAANKVAIPMRFNGKSGVEVRLPNDL

EDLKGYTSLSLFLQRPDLRENGGTEDMFVMYLGNKDASKDYIGMAVVDGQLTCVYNLG

DREAEVQIDQVLTESESQEAVMDRVKFQRIYQFAKLYTKEATSNPKAPAVYDLEGG

SSNTLLNLDPEDAVFYVGGYPPDFELPSRLRFPPYKGCIELDDLNENVLSLYNFKTTF

NLNTTEVEPCRRRKEESDKNYFEGTGYARIPTQPNAPFPNFIQTIQTTVDRGLLFFAE

FIG. 2H (CONT)

NQDNFISLNIEDGNLMVRYKLNSEPPKEKGIRDTINDKDHSILITIGKLQKRMWINV  
NERSVRIEGEIFDFSTYYLGGIPIAIRERFNISTPAFQGCMKNLKKTSGVVRLNDTVG  
VTKKCSEDWKLVRTASFSGGQMSFTNLDVPSTDRFQLSFGFQTFQPSGTLLNHQTRT  
SSLLVTLEDGHIELSTRDSNIPIFKSPGTYMDGLLHHVSVISDTGLRLLIDDQVLRR  
NQRLPSFSNAQQSLRLGGGHFEGCISNVLVQRFSQSPEVLDLASKSTKKDASLGCGSL  
NKPPFLMLFKSPKRFNKGRIFNVNQLMQDAPQATRSTEAWQDGRSCLPPLNTKASHRA  
LQFGDSPTSHLLLKLPQELLKPRSQFSLDIQTTSKGLVFYAGTKDSFLALYVADGRV  
VFALGAGGKKLRLRSKERYHDGKWHTVVFGNGKARLVVDGLRAQEGSLPGNSTISP  
REQVYLGLPLSRKPQHSFVGCLRDFQLNSKPLDSPSARFGVSPCLGGSLEKGIY  
FSQGGGHVILANSVSLGPELKLTFSIRPRSLTGVLIHVGSQSGQRLSVYMEAGKVTT  
VSSDAGGSVTSITPKQSLCDGQWHSAVSIKQRILHLELDSSYTVA  
PLSFSPNSTR  
GSLHVGGVPDKLMLTPVWNSFFGCLKNIQVNHVPVPITEATEVQGSVSLNGCPDH

FIG. 2I

1 atgtcagagg gcatttgctg ccgagctggc gcacttgca agagtggaca  
gcaagtttcc  
61 actgtggtgg tggtagatcc accaaaccat gccagtgaa tgagaactga  
atgcagccca  
121 ccagagcacg tgcacacgtg cattaaggaa cctcagaatc agctcttcca  
tgtggctt  
181 atcttaatca aatttgcaaa ctctccccgc cctgatctt ggatcctgga  
aagatctgta  
241 gactttggaa gcacctactc accatggcag tattttgctc attctagaag  
agattgtgta  
301 gaacagtttgcggaa ggcaagaagc aaacatggca attaccagg acgaccagat  
gctctgtgtc  
361 acggagtatt cccgtatcgt gcctctggaa aatggcgaga ttgttgtatc  
cttgataaat  
421 ggtcgtccag gtgaaaaaaaaa gtttgcttgc tctgacactc tgagggagtt  
tactaaggca

FIG. 2I (CONT)

481 acaaacatcc gcttcgggtt tctgcgaacc aacaccctcc tcgggcacatct  
tatttccaag  
541 gcagagcgag accccactgt cacgcgcggg tattattgca tggaagctga  
tgatgctcg  
601 ttctctgtcc tgcagtatta ttacagcata aaggatatca gtgttgggtgg  
gcgggtgtgtt  
661 tgcaacggcc atgcggaggc gtgcagtgtc gacaaccctg aaaagcagtt  
ccgatgcgaa  
721 tgccagcacc atacctgtgg agacacgtgt aaccgctgtc gtgcaggtta  
caatcagagg  
781 cgctggcagc ctgctggtca ggagcagcac aatgagtgtg aagcctgcaa  
ctgccatggg  
841 catgctgtgg actgctacta tgaccagac gtggagcacc agcaggcgag  
cttgaacagc  
901 aaaggcgtct acgcagggtgg aggggtctgc atcaactgtc agcacaacac  
tgcaggcgtg  
961 aactgtgaaa agtgtgcaaa gggttacttc cggcccatg gagttccgg  
ggatgcactg  
1021 catggatgca tcccttgcag ctgtgaccca gaacgcgcag atgactgtga  
ccagggctca  
1081 ggccactgcc attgttaagcc aaatttctcc ggagactact gtgagacgtg  
tgcagatggg  
1141 tactataatt ttccattttg cttgagaatt ccagtcttc ccaactacac  
tccaagtcca  
1201 gaagatccag tggctggcaa tataaaaggc aaggatccag ggactctaga  
cccaccagtc  
1261 atagcaaatg gggcatatct tggagcttca agactagagc aaggagccac  
aggccaggc  
1321 agccctgctg agagggtcac ccacaccaac tcatggctga gttcctcaat  
gcctatgtc  
1381 caggtaggg ctgccatcca tgaggctaag tttactctc tgtgtttctg  
tatgtatgtt  
1441 gagcacagtg ggactgtacc acctgctctg gggtcagggtt atacagggga  
ctctgagcct  
1501 aaaacaggaa cccaggcaaa aaggggggtgt gactgttaact tggaaggtgt  
tctcccaagag  
1561 atatgtgacg atcgtggcag gtgcctgtgc cgccctgggg ttgagggtcc  
ccagtgtgac  
1621 tcctgcccgt cgggctccta ttcatttccc atatgccaag cttgccagtg  
ttcgacgatt  
1681 ggatcctatc cagtgccctg tgaccgggg aatggccagt gtgactgcct  
gcctggaaatt  
1741 accgggagggc agtgtgacag gtgtctctcg ggagcctatg actttccata  
ctgccaagg

FIG. 2I (CONT)

1801 aaggaagccg gcagcatgtt ggaggctcg ggaggctcg tcctcatctg agtgggtgca  
gctgaccctct  
1861 tggagaagcc tgggttatttgc tcatgtcaag cagcatgttgc caagtcctac  
atgttagtgctc  
1921 tgcaaaccat tatattggaa tctggccaaa gaaaacccccc gtggatgctc  
agagtgccag  
1981 tgccatgaag cagggacatt gagtgaaatt ggagagtgtg ggcaggagga  
cggtgactgt  
2041 agctgcaaag cccatgtAAC tgggtatgcc tgccgacacct gtgaagatgg  
gtttttctct  
2101 ttggagaaga gcaattactt tggctgtcaa gggtgtcagt gtgacattgg  
tggagcactc  
2161 accaccatgt gtagtggcc ctggggagta tgccagtgc gagagcacgt  
ggagggggaaa  
2221 cagtgccaga ggcctgaaaa taactactac ttcccgatt tgcaccacat  
gaagtatgag  
2281 gtcgaagatg gcactggacc taatggaaga aacctgcggg ttggatttga  
tcccctggta  
2341 ttccctgagt ttagctggag aggatatgct ccaatgacacct cagtcaggt  
atatatgagt  
2401 gagtggtgtgt gtcctctaca ctgcatgtta ttttgggta ctttcagaa  
tgaagtaagg  
2461 gtgagattgt ctgtgaggca gtccagcctc tccttggcc gcatcggt  
gagatacatc  
2521 agtcctggaa cggaagccat atccggccga atcactctt actcatcgca  
gggagattcg  
2581 gatgctttgc aaagcagaaa aatcacctt ccccccggta aagagccagc  
ctttgtcaca  
2641 gtcctggaa atggctttgc aggcccattc tccatcacac ctgggacgtg  
gattgcttgc  
2701 atccaggtgg aaggagtcct tctggactac ctgggtgtgc ttcccaggaa  
ctactatgaa  
2761 gcattcaccc tgcaagtgc agtcacagag ccatgtgccc acacaggatc  
tccccaggac  
2821 aactgtttgc tttaccagca tttaccactg actgcattct cctgtaccct  
ggcttgc  
2881 gccagacact tcctgctgga tggagagctg agacccttgg caatgaggca  
gccccacaccc  
2941 acacacccag ccatggtgga cctcagcggg agagaggttag aactgcagct  
tcgtctgcgg  
3001 gtcccacagg ttggccacta cgtggcctg ctggagttatg ccacggaggt  
ggagcagctt  
3061 tttgtgggtgg acgtgaatct gaagagctca gggtctgcct tggcaggcca  
ggtaacata

FIG. 2I (CONT)

3121 tacagctgca agtacagcat cccgtgcagg agtgtggta ttgacagcct  
gagtgcacg  
3181 gctgtacatg agctgttggc agatgcagac attcagctca aggcgacat  
ggcccatttc  
3241 cttttgtatc acatttgtat tataccagct gaagaattct caactgaata  
ttttagacat  
3301 caagtccact gcattgccag ctacaggcag catgctaatac caagtgcctc  
ctgtgtctcc  
3361 ctggcccatg aaactcctcc aacagcctca attttggatg ctacaagtag  
ggccctttc  
3421 tctgccctac ctcatgagcc ttcctctcct gcagatggag ttactctgaa  
ggcaccacag  
3481 agtcaagtga ccctgaaagg actcataccca cacctgggcc gacacgtctt  
tgtcatccat  
3541 ttttatcaag cagagcaccc agggtttccc actgaggtga ttgtaatgg  
aggaagacag  
3601 tggtcaggtt cttcccttgc ctccttctgt ccccacttac ttggctgccc  
ggaccaggtg  
3661 atctctgatg gccaagtgga gtttgacatc tctgaagcag agtagctgt  
gacagtgaag  
3721 attccagatg gaaagtcctt aacattggtc cgggttctag tggtaacctgc  
agagaattac  
3781 gactacccaa ttcttcacaa aacaacagtg gacaagtccct ccgagttcat  
cagcagttgt  
3841 ggaggagaca gctttatat tgatccccag gcagcctctg gattctgtaa  
gaattctgca  
3901 aggtccctgg tagcctttta ccataacggt gccataaccct gtgagtgca  
ccctgctggg  
3961 actgccggcc accactgttag tcctgagggt gggcagtgcc cttgccggcc  
caatgtcatc  
4021 gggaggcagt gcagccgctg tgcgacaggc tactatggat tccctatactg  
caagccttgc  
4081 aattgtggca gacgccttg tgaagaggtg acaggaaagt gtctctgccc  
accccacaca  
4141 gtcaggcctc agtgtgaggt ctgtgagatg aattccttca actttcaccc  
tgtggctggc  
4201 tgtgacgtct gcaactgctc caggaaggc accattgagg cggccgtctc  
tgagtgtgac  
4261 agggacagcg ggcagtgca gtcgaaggct agagtcacag ggcagcagt  
tgacaagtgt  
4321 gtcctggct tctaccagtt ccctgagtgt gtccctgca gctgtaacag  
agatgggact  
4381 gagcccagcg tatgtgaccc agagactgg gcttgcatgt gcaaggaaaa  
tgtagagggc

FIG. 2I (CONT)

4441 cccaaatgtc aactgtgtcg agaaggatca ttctacctgg acccaacaaa  
cccaaagggt  
4501 tgtaccaagt gcttctgttt tggagtgaat actgactgtc agagttcgca  
taagcaacga  
4561 gctaagttt tagacatgtat gggctggcgt ctggagacag cagatggagt  
tgatgtccct  
4621 gtgtccttca accctggcag caacagcatg gtggcagatc tgcaggagct  
gccaccctca  
4681 gttcacagtg catcctgggt ggcaccccca tcctaccttag gtgataaggt  
atcatcgtac  
4741 ggcggctacc tcacccatcca cgccaaagtcc tttggcttac ctggagatat  
ggttcttctg  
4801 ggaaagcagc cagatgtgca gctcaactggt caacacatgt ccctcatcca  
taaggaaccc  
4861 agcgacccac ggccagacag gctgcatcac ggaagagtgc aagtgattga  
gggaaacttc  
4921 agacacgaag gcagcagtgc cccagtgtcc cgggaggagc tgatgactgt  
gctgtccaga  
4981 ctggaaagac tccacatccg gggcctccat ttcaccgaga cacagcggct  
cacccctgggt  
5041 gaggttagggc tggaggaggc ctctgacacg ggaagcggac ccagggctca  
tcttggag  
5101 atgtgtgcct gccccctga ctacacaggt gactcatgcc agggttgtcg  
ccctggatac  
5161 tattggaca acaaaagctt acctgttagga aggtgtgttc cctgcaattg  
caacggacat  
5221 tcaaataatgcat gccaggatgg ctccggata tgcattaact gtcagcacaa  
cacagctggg  
5281 gagcactgtg agcgttgcac agcaggtcac tatggaaatg ccatccacgg  
atcttggtagg  
5341 gtctgcccct gccctcatac caacagttt gccaccggct gtgctgtgga  
tggtag  
5401 gtgaggtgtg cctgcaaacc cggatacaca ggaacacagt gtgagaggtg  
tgcaccagga  
5461 tattttggga acccccagaa atttggaggt agctgccagc catgcaattg  
taacagcaat  
5521 ggccagttag gtccttgcga cccccctaact ggagactgtg taaaccaaga  
acccaaagat  
5581 ggcagccctg cagaagaatg tgatgactgc gacagctgtg tgatgacgct  
cttaaatgac  
5641 ttggcctcca tgggtgagga actccgcctg gtgaagtcaa agctgcaggg  
gctgagtg  
5701 agcacgggtg ctctggaaca gatccggcac atggagacgc aggccaagga  
cctgaggaac

FIG. 2I (CONT)

5761 cagctgcttg gcttccgttc tgccacaccta agtcatgggt cccaaatggaa  
tgacacctggaa  
5821 aaagagctga gtcatttgaa ccggaaattt gaaactctgc aagaaaaggc  
acaggtcaat  
5881 tccagaaaaag cacaaacatt atataacaac attgatcaga caatccaaag  
tgccaaagaa  
5941 ctggacatga agataaaaaa catcggttcag aatgtgcaca ttctcctgaa  
gcagatggcg  
6001 aggccaggtg gagaaggcac ggacttgcca gtgggtgact ggtccaggaa  
gctggccgaa  
6061 gctcaacgca tgcgtcgaga cctgcgaagc cgagacttta aaaagcacct  
ccaaagaagca  
6121 gaggccgaga aaatggaagc ccagctctta ctgcaccgga tcaggacctg  
gctggaaatcc  
6181 caccaggtgg agaacaacgg actgctaaag aatattcggg actccttaaa  
tgattatgaa  
6241 gacaaacttc aggacctacg ttccatcctc caggaggcag ctgcccaggc  
aaagcaggcc  
6301 actggcatca accatgaaaaa tgaggggtt ctcggagcca tccagagaca  
aatgaaagaa  
6361 atggattccc tgaagaatga ctgcaccaag tacctggcca cagccgactc  
ttccctgctg  
6421 cagaccaaca atctactgca gcagatggac aaaagccaga aggaatatga  
aagcttagct  
6481 gctgcttaa atggagcaag acaggaactg agtgcacagag tgcgagaact  
gtccagatcg  
6541 ggtggcaaag caccgctgggt ggtggaggca gagaagcatg cacagtctt  
acaggagctg  
6601 gcaaagcagc tggaagagat aaagagaaac accagcgggg atgagctggt  
gctttgtgt  
6661 gtggatgctg ccacggccta tgagaacatc ctcaatgcca tcagagcagc  
agaggatgca  
6721 gccagcaagg ccaccagtgc ctccaagtct gccttccaaa cagtataaa  
ggaagacctt  
6781 cccaaagag ctaagaccct gagttctgac agcgaggaac tgttaatga  
agccaagatg  
6841 acacagaaaa ggctacagca agtcagtcca gctctcaaca gcctacaaca  
aaccctgaag  
6901 actgtatcag ttcagaagga cctgcttagat gccaacctca ctgttgcgg  
tgatgatctt  
6961 catggatac agagaggtga tatcgacagt gtgggtgatcg gtgcaaagag  
catggtcagg  
7021 gaagccaaacg gaataacaag cgaggtcctg gacgggctca accccatcca  
gacagatttg

FIG. 2I (CONT)

7081 ggaaggatta aggacagcta tgagagcgca cggcgtgaag acttcagcaa  
ggctctggc  
7141 gatgccaata actcagtaaa gaaattaacc aggaagttgc ctgatcttt  
tatcaagatt  
7201 gaaagtatca accaacagtt gctgcccctg ggaaacatct ctgacaatgt  
ggaccgaatc  
7261 cgagaactca ttcagcaggc cagagatgct gcaaacaagg tgggtattcc  
catttggctc  
7321 tag

FIG. 2J

MSEGICCRAGALCKSGQQVSTVVVDPNHASMRTECSPPHEV  
HTCIKEPQNQLFHVAYILIKFANSPPDLWILERSVDFGSTYSPWQYFAHSRRDCVEQ  
FGQEANMAITQDDQMLCVTEYSRIVPLENGEIVVSLINGRPGAKKFAFSDTLREFTKA  
TNIRLRFLRTNTLLGHLISKAERDPTVTRYYCMEADDALFSVLQYYYSIKDISVGGR  
CVCNGHAEACSADNPEKQFRCECQHHTCGDTNRCAGYNQRRWQPAGQEQQHNECEAC  
NCHGHAVDCYYDPDVEHQASLNSKGVYAGGGVCINCQHNTAGVNCEKCAKGYFRPHG  
VPVDALHGCIPCSCLPERADDQGSGHCHCKPNFSGDYCETCADGYYNFPFCLRIPV  
FPNYTPSPEDPVAGNIKGKDPGLDPPVIANGAYLGASRLEQGATGQGSPAERVTHTN  
SWLSSSMPMLQVRAAIHEAKCYSLCFCMYVEHSGTVPPALGSGYTGDSEPKTGTQAKR  
GCDCNLEGVLPDICDDRGRCLCRPGVEGPQCDSCRSGSYSFPICQACQCSTIGSYPPV  
CDPGNGQCDCLPGITGRQCDRCLSGAYDFPYCQGKEAGSMLEARSSSEWVQLTSWRSL  
GYCQCKQHVASPTCSVCKPLYWNLAKENPRGCSECQCHEAGTLSGIGECGQEDGDCSC  
KAHVTGDACDTCEDGFFSLEKSNYFGCQGCQCDIGGALTTMCSGPSGVQCRCHEV  
QCQRPENNYYFPDLHHMKYEVEDGTGPNGRNLRGFDPLVPEFSWRGYAPMTSVQVY  
MSECVCPLHCMFWGTFQNEVRVRLSRQSSLFRIVLRYISPGTEAISGRITLYSS  
QGDSDALQSRKITFPPSKEPAFVTVPNGFAGPFSITPGTWIACIQVEGVLLDYLVLL

FIG. 2J (CONT)

PRDYYEAFTLQPVTEPCAHTGSPQDNCLLYQHLPLTAFSCTLACEARHFLLDGELRP  
LAMRQPTPTHAMVDSLGSREVELQLRLRVPQVGHYVVLLEYATEVEQLFVVDVNLKSS  
GSALAGQVNIYSCKYSIPCRSVVIDSLSRTAVHELLADADIQLKAHMAHFLLYHICII  
PAEEFSTEYLRPQVHClASYRQHANPSASCVSLAHEETPPTASILDATSRGLFSALPHE  
PSSPADGVTLKAPQSQVTLKGLIPHLGRHVFVIHFYQAEHPGFPTEVIVNGGRQWSGS  
FLASFCPHLLGCRDQVISDGQVEFDISEAEVAVTVKIPDGKSLTLVRVLVVPAENYDY  
QILHKTTVDKSSEFISSCGGDSFYIDPQAASGFCKNSARSLVAFYHNGAIPCECDPAG  
TAGHHCSPEGGQCPCKRPNVIGRQCSRATGYYGFPYCKPCNCGRRLCEEVTGKCLCPP  
HTVRPQCEVCEMNSNFHPVAGCDVCNCRKGTIEAAVSECDRDSGQCRCKPRVTGQQ  
CDKCAPGFYQFPECVPCSCNRDGTEPSVCDPETGACMCKENVEGPQCQLCREGSFYLD  
PTNPKGCTKCFCFGVNTDCQSSHKQRAKFVDMMGWRLETADGVDPVSFNPGNSNMVA  
DLQELPPSVHSASWVAPPASYLGDKVSSYGGYLTYHAKSFGLPGDMVLLGKQPDVQLTG  
QHMSLIHKEPSDPRPDRLHHGRVQVIEGNFRHEGSSAPVSREELMTVLSRLERLHIRG  
LHFTETQRLTLGEVGLEEASDTGSGPRAHLVEMCACPPDYTGDCQGCRPGYYWDNKS  
LPVGRCPNCNGHSNRCQDGSGICINCQHNTAGEHCERCQAGHYGNAIHGSCRVCPC  
PHTNSFATGCAVDGGAVRCACKPGYTGTQCERCAPGYFGNPQKFGGSCQPCNCNSNGQ  
LGPCDPLTGDCVNQEPKDGSPAEECDDCDSCVMTLLNDLASMGEELRLVKSKLQGLSV  
STGALEQIRHMETQAKDLRNQLLGFRSATSSHGSKMDDLEKELSHLNREFETLQEKAQ  
VNSRKAQTLNNIDQTIQSAKELDMKIKNIVQNVHILLKQMARPGGEGTDLPGDWSR  
ELAEAQRMMRDLRSRDFKKHLQEAEAEKMEAQLLLHRIRTWLESHQVENNGLKNIRD  
SLNDYEDKLQDLRSILQEAAAQAKQATGINHENEGVLGAIQRQMKEMDSLKNDFTKYL  
ATADSSLQTNLLQQMDKSQKEYESLAAALNGARQELSDRVRELSRSGGKAPLVVEA

FIG. 2J (CONT)

EKHAQSLQELAKQLEEIKRNTSGDELVRCAVDAATAYENILNAIRAAEDAASKATSAS  
KSAFQTVI覩EDLPKRAKTLSSDSEELLNEAKMTQKRLQQVSPALNSLQQTLKTVSVQK  
DLIDANLTVA RD DLHGIQRGDIDS VVIGAKSMVREANGITSEVLDGLNPIQTDLGRIK  
DSYESARREDFSKALVDANNSVKKLTRKL PDLFIKIESINQQLLPLGNISDNVDRIRE  
LIQQARDAANKVGIPWIWL"

CSPLPKTQANHGALQFGDIPTSHLLFKLPQELLKPRSQFAVDMQTTSSRGLVFHTGKNSFMAL  
YLSKGRLVFALGTDGKKLRIKSKECNDGKWHTVVFGHDGEKGRLVVDGLRAREGSLPGNSTIS  
IRAPVYLGSPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSGVSSCLGGPLEKGIYFSEEG  
GHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAGKVTASMDSGAGGTSTS  
VTPKQSLCDGQWHSVAVTIKQHILHLELDSSYTAGQIPFPPASTQEPLHLGGAPANLTLRI  
PVWKSFFGCLRNIHVNHIPPVTEALEVQGPVSLNGCPDQ

**FIG. 3A**

t gctcaccact tcccaagacc caggccaatc atggagccct ccagttggg  
gacattccca ccagccactt gctattcaag cttcctcagg agctgctgaa  
acccagggtca cagtttgcg tggacatgca gacaacatcc tccagaggac  
tgggtttca cacgggcact aagaactcct ttatggctct ttatcttca  
aaaggacgtc tggtcttgc actggggaca gatggaaaaa aattgaggat  
caaaagcaag gagaaatgca atgatggaa atggcacacg gtgggtttg  
gccatgatgg gaaaaagggg cgcttggttg tggatggact gagggcccg  
gagggaaagtt tgccctggaaa ctccaccatc agcatcagag cgccagttt  
cctggatca cctccatcag gaaacccaaa gagcctcccc acaaacagct  
ttgtggatg cctgaagaac tttcagctgg attcaaaacc cttgtatacc  
ccttcttcaa gcttcggggt gtcttcctgc ttgggtggtc ctttggagaa  
aggcatttat ttctctgaag aaggaggta tgcgtcttg gtcactctg  
tattgttggg gccagaattt aagcttggtt tcagcatccg cccaaagaatg  
ctcaactggga tcctaataca catcggaaat cagccccggaa agcacttatg  
tggttacctg gaggcaggaa aggtcacggc ctctatggac agtggggcag  
gtgggacctc aacgtcggtc acacccaaagc agtctctgtg tgcgttacag  
tggcactcgg tggcagtcac cataaaacaa cacatcctgc acctggaaact  
ggacacagac agtagctaca cagctggaca gatccccctc ccacctgcca  
gcactcaaga gccactacac ctggagggtg ctccagccaa ttgcacgaca  
ctgaggatcc ctgtgtggaa atcattctt ggctgtctga ggaatattca  
tgtcaatcac atccctgtcc ctgtcactga agccttggaa gtccaggggc  
ctgtcagtct gaatgggtgt cctgaccagt aacccaagcc tatttcacag  
caaggaaatt caccccaaagcactgatt acccaatgca cctccctccc  
cagctcgaga tcattctca attaggacac aaaccagaca ggttaatag  
cgaatctaattt tttgaattct gaccatggat acccatcact ttggcattca  
gtgctacatg tgcgttacatg ataaaaatcc catttcttgc agataaaaaa  
attgttattc aaattgttat gcacagaatg ttttggtaa tattaatttc  
cactaaaaaa ttaaatgtct

**FIG. 3B**

CLGGPLEKGIYFSEEGGHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAG  
KVTASMDSGAGGTSTS VTPKQSLCDGQWHSVAVTIKQHILHLELDSSYTAGQIPFPPASTQE  
PLHLGGAPANLTLRIPVWKSFFGCLRNIHVNHIPPVTEALEVQGPVSLNGCPDQ

**FIG. 3C**

tgc ttgggtggc cttggagaa aggcatat ttctctgaag aaggaggta  
tgtcgcttg gctcaactctg tattgttggg gccagaattt aagcttgttt  
tcagcatccg cccaagaagt ctcactggg tcctaataca catcgaaagt  
cagcccggg a gcaacttatg tgtttacctg gaggcaggaa aggtcacggc  
ctctatggac agtggggcag gtgggaccc aacgtcggtc acaccaaagc  
agtctctgtg t gatggacag tggcaactcg tggcagtcac cataaaacaa  
cacatcctgc acctgaaact ggacacagac agtagctaca cagctggaca  
gatccccttc ccacctgcca gcactcaaga gccactacac cttggaggtg  
ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa atcattctt  
ggctgtctga ggaatattca tgtcaatcac atccctgtcc ctgtcaactga  
agccttgaa gtccaggggc ctgtcagtct gaatggttgt cctgaccagt  
aaccgaagcc tatttcacag caaggaaatt caccccaaaa agcaactgatt  
acccaaatgca cctccctccc cagctcgaga tcattcttca attaggacac  
aaaccagaca ggttaatag cgaatctaattt gaccatggat  
acccatcaacttggcattca gtgctacatg tgtatatttataaaaaatcc  
catttcttga agataaaaaaa attgttattc aaattgttat gcacagaatg  
ttttggtaa tattaatttc cactaaaaaa ttaaatgtct

**FIG. 3D**

PLPKTQANHGA

**FIG. 3E**

cact tcccaagacc caggccaaatc atggagc

**FIG. 3F**

SHLLFKLPQELLKPRS

**FIG. 3G**

gccactt gctattcaag cttcctcagg agctgctgaa acccaggtca

**FIG. 3H**

TSSRGLVFHTGKNSFMALYLSKGRLVFALGKDKLRIKSKECNDGKWHVVFGHDGEKGRL  
VVDGLRAREGSLPGNSTISIRAPVYLGSPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSFG  
VSS

**FIG. 3I**

gacaacatcc tccagaggac tgggtttca cacgggact aagaactcct  
ttatggctct ttatcttca aaaggacgtc tggctttgc actggggaca  
gatggaaaaa aattgaggat caaaagcaag gagaaatgca atgatggaa  
atggcacacg gtgggtttg gccatgatgg ggaaaagggg cgcttggttg  
tggatggact gagggcccg gaggaaagtt tgcctggaaa ctccaccatc  
agcatcagag cgccagttt cctggatca cctccatcag ggaaaccaa  
gagcctcccc acaaacagct ttgtggatg cctgaagaac tttcagctgg  
attcaaaacc cttgtataacc cttcttcaa gcttcgggt gtcttc

**FIG. 3J**

TSSRGLVFHTGKNSFMALYLSKGRNVFALGTGKKLRIKSKEKNDGKWHTVVFHGDGEKGRL  
VVDGLRAREGSLPGNSTISIRAPVYLGSPSGPKSLPTNSFVGCLKNFQLDSKPLYTPSSSFG  
VSSCLGGPLEKGIYFSEEGHVVLAHSVLLGPEFKLVFSIRPRSLTGILIHIGSQPGKHLGVYL  
EAGKVTASMDSGAGGTSTSVPKQSLCDGQWHSVAVTIKQHILHLELDTDSSYTAGQIPFPPAS  
TQEPLHLGGAPANLTTLRIPVWKSFFGCLRNIHVNHIPVPVTEALEVQGPVSLNGCPDQ

**FIG. 3K**

catcc tccagaggac tgggtttca cacgggact aagaactcct ttatggctct  
ttatcttca aaaggacgtc tggctttgc actggggaca gatggaaaaa  
aattgaggat caaaagcaag gagaaatgca atgatggaa atggcacacg  
gtgggtttg gccatgatgg ggaaaagggg cgcttggttg tggatggact  
gagggcccg gaggaaagtt tgcctggaaa ctccaccatc agcatcagag  
cgccagttt cctggatca cctccatcag ggaaaccaa gagcctcccc  
acaaacagct ttgtggatg cctgaagaac tttcagctgg attcaaaacc  
cttgtataacc cttcttcaa gcttcgggt gtcttcgtc ttgggtggc  
cttggagaa aggcatttat ttctctgaag aaggaggtca tgtcgtctg  
gctcaactctg tattgttggg gccagaattt aagcttggaa tcagcatccg  
cccaagaagt ctcactgggta tcctaataca catcggaaat cagcccgaa  
agcaattatg tggtaacactg gaggcaggaa aggtcacggc ctctatggac  
agtggggcag gtgggacctc aacgtcggc acaccaaagc agtctctgt  
tgatggacag tggcaactcg tggcagtcac cataaaacaa cacatcgtc  
acctggaaact ggacacagac agtagctaca cagctggaca gatccccctc  
ccacactgcca gcactcaaga gccactacac cttggaggtg ctccagccaa  
tttgacgaca ctgaggatcc ctgtgtggaa atcattctt ggctgtctga  
ggaatattca tgtcaatcac atccctgtcc ctgtcaactga agccttggaa  
gtccaggggc ctgtcagtct gaatgggtgt

**FIG. 3L**

FKLVFSIRPRSLTGILIHIGSQPGKHLGVYLEAGKVTASMDSGAGGTSTSVPKQSLCDGQWHS  
VAVTIKQHILHLELDTDSSYTAGQIPFPPASTTQEPLHLGGAPANLTTLRIPVWKSFFGCLRNIH  
VNHIPVPVTEALEVQGPVSLNGCPDQ

**FIG. 3M**

tt aagcttgttt tcagcatccg cccaagaagt ctcactggga tcctaata  
catcggaaagt cagccccggga agcacttatg tgtttacctg gaggcaggaa  
aggtcacggc ctctatggac agtggggcag gtgggacctc aacgtcggtc  
acaccaaagc agtctctgtg tcatggacag tggcactcgg tggcagtcac  
cataaaacaa cacatcctgc acctggaaact ggacacagac agtagctaca  
cagctggaca gatccccttc ccacactgcca gcactcaaga gccactacac  
cttggaggtg ctccagccaa tttgacgaca ctgaggatcc ctgtgtggaa  
atcattctt ggctgtctga ggaatattca tgtcaatcac atccctgtcc  
ctgtcactga agccttggaa gtccaggggc ctgtcagtct gaatggttgt  
cctgaccagt

FIG. 3N

**FIG. 4**

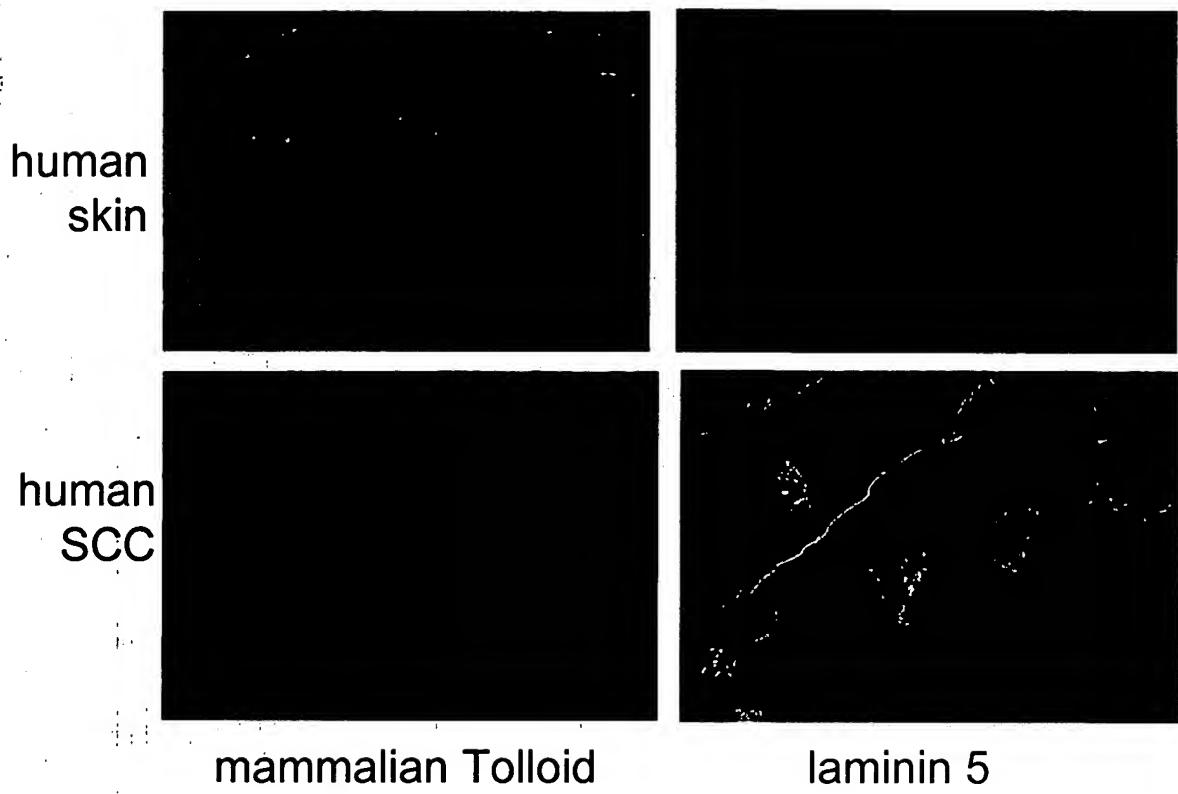
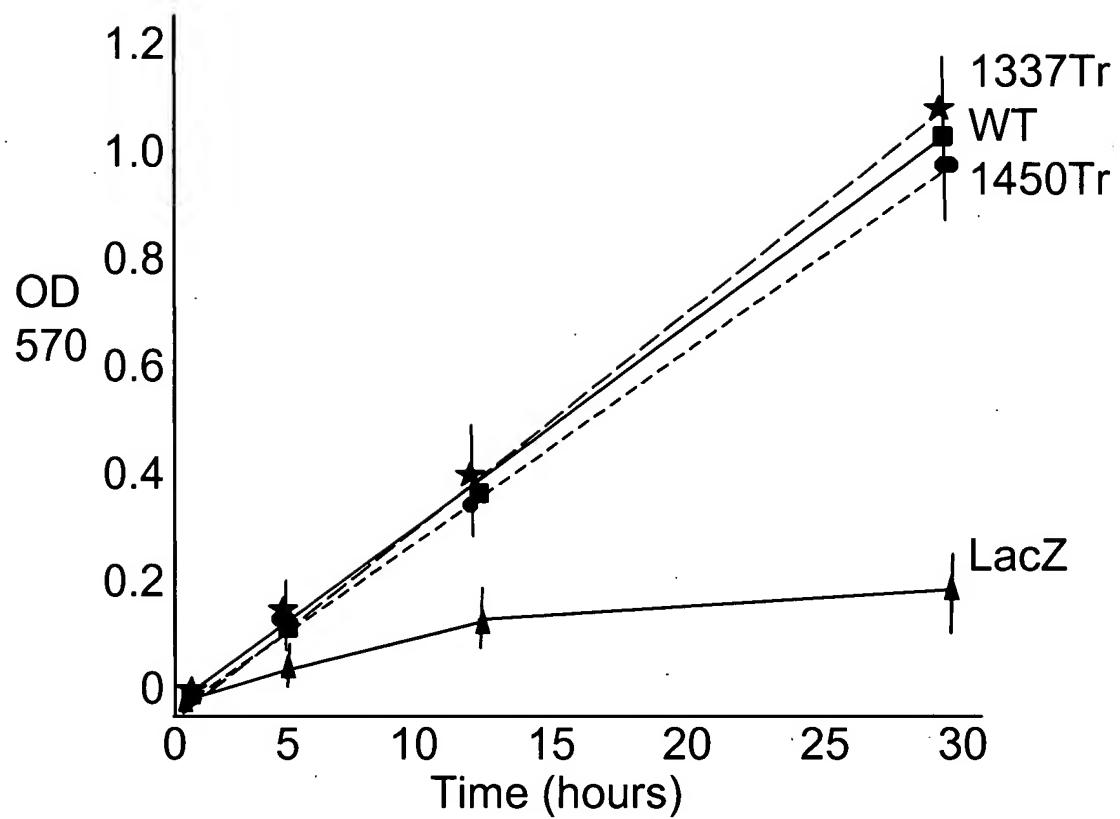


FIG. 5



**FIG. 6**

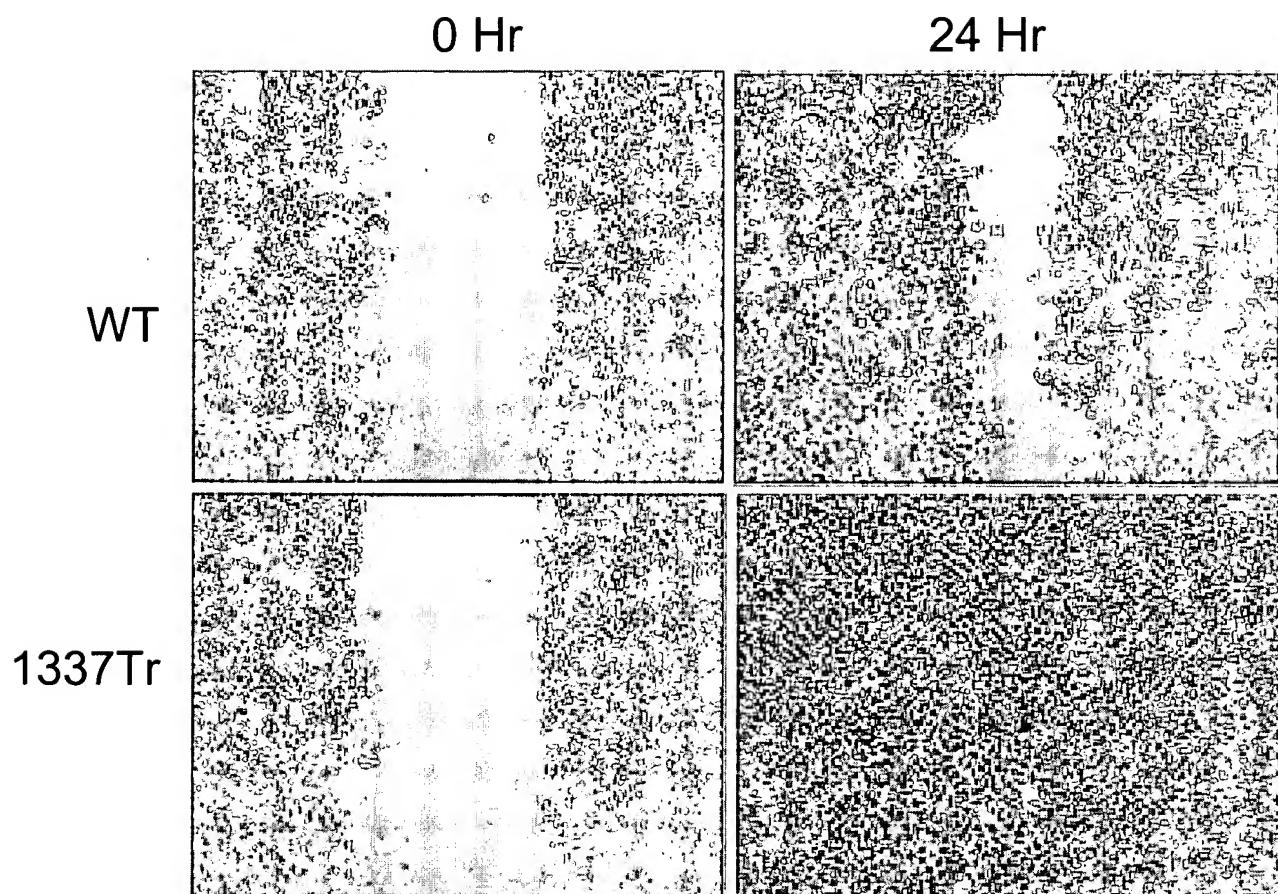


FIG. 7

